DOCUMENT RESUME

ED 118 802 CE 006 335

TITLE	Knowledge and Policy in Manpower: A Study of the Manpower Research and Development Program in the Department of Labor.
INSTITUTION	National Academy of Sciences - National Research Council, Washington, D.C. Committee on Dept. of Labor Manpower Research and Development.
PUB DATE	75
NOTE	178p.
EDRS PRICE	MF-$0.83 HC-$10.03 Plus Postage
DESCRIPTORS	Evaluation Criteria; *Evaluation Methods; Federal Legislation; *Federal Programs; Labor Force; Labor Problems; *Manpower Development; Manpower Needs; Policy Formation; *Program Descriptions; *Program Evaluation; Program Improvement
IDENTIFIERS	Manpower Research; *Office of Manpower Research and Development; OMRD

ABSTRACT

The document presents an analysis of the progress in the research and development (R & D) efforts of the Department of Labor as embodied in the Manpower Development and Training Act, which combined an inquiry system and a mission-oriented operating system in a single agency. The analysis is presented in two parts. Part 1, The Manpower R & D Program: An Evaluation, discusses some issues related to social science R & D in government and to manpower policy and manpower study. Factors for evaluating R & D programs and major objectives of manpower policies are identified. Findings based on the accomplishments of the Office of Manpower Research and Development (OMRD) are discussed, and recommendations to improve the program are given. Part 2, Manpower R & D in a Mission Setting, provides an historical account of the institutional and policy context within which the manpower R & D program has operated. Labor issues that have affected the Department of Labor and future manpower problems are reviewed. The major characteristics of OMRD are examined: (1) the R & D program; (2) budget, legislative mandate, interactions, and staff capabilities; (3) management (planning, implementation, and dissemination of results); and (4) utilization of OMRD project results. Methods and sources used in the study are appended. References are included. (Author/EC)

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Knowledge and Policy in Manpower

A Study of the Manpower Research and Development Program in the Department of Labor

NATIONAL ACADEMY OF SCIENCES

CE006 885

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Committee on Department of Labor Manpower Research and Development
Assembly of Behavioral and Social Sciences
National Research Council

NATIONAL ACADEMY OF SCIENCES
WASHINGTON, D.C. 1975

NOTICE: The project that is the subject of this report was approved by the Governing Board of the National Research Council, whose members are drawn from the Councils of the National Academy of Sciences, the National Academy of Engineering, and the Institute of Medicine. The members of the Committee responsible for the report were chosen for their special competences and with regard for appropriate balance.

This report has been reviewed by a group other than the authors according to procedures approved by a Report Review Committee consisting of members of the National Academy of Sciences, the National Academy of Engineering, and the Institute of Medicine.

Library of Congress Catalog Card Number [illegible]

International Standard Book Number [illegible]

Available from
Printing and Publishing Office
National Academy of Sciences
2101 Constitution Avenue, N.W.
Washington, D.C. 20418

Printed in the United States of America

PREFACE

This is a report of the early stages of a pioneering effort in the Department of Labor. This effort began in 1962 with the inclusion of provisions for research and development in the Manpower Development and Training Act (MDTA). It was one of the nation's first organized attempts to combine an inquiry system and a mission-oriented operating system in a single government agency. Such combinations had occurred in agencies whose research relied largely on physical and biological sciences, but seldom before on any significant scale in agencies whose research relied mainly on behavioral and social sciences. The inclusion of an inquiry system in an operating agency is a measure of confidence in the methods of science for judging the adequacy of other parts of the agency and for ensuring that changes in policies or programs are guided and informed by inquiry.

At the first stage, the Department of Labor had to proceed under conditions of uncertain validity and almost no historical precedents. It was necessary to assume, for example, that a Federal agency could provide an acceptable, if not always an ideal, environment for policy-oriented social science research and development. The difficulties resulting from this assumption were familiar; the goals and purposes of a mission-oriented, program-operating system do not always coincide with the goals and purposes of an inquiry system. It was also necessary to assume that research and development capabilities were available or could be developed. The difficulties resulting from this assumption were also inevitable, since researchable problems in manpower do not often fit the tidy categories of research in the traditional academic disciplines.

In addition, the word "manpower" itself connotes many dimensions of human resource development. Both as a term of art and as an area of public policy, manpower incorporates a host of economic and social considerations as those related to people's entry and progression within the world of work: education and training, health and nutrition, job discrimination, management of the national economy, operation of employing institutions, worker productivity, labor mobility and migration, workplace standards and regulation, wage determination and collective bargaining, and income security. The Department of Labor adopted the term manpower in the early 1960's—when its Manpower Administration was created—to embrace a broader set of concerns than represented by the terms "employment" and "training." In recent years, however, the word manpower has come under attack for its sexist connotation. At this time, the Department of Labor is considering abolishing the word manpower from its administrative and program structure.

PART I

THE MANPOWER R&D PROGRAM: AN EVALUATION

Chapter 1

INTRODUCTION: EVALUATING SOCIAL SCIENCE RESEARCH AND DEVELOPMENT IN GOVERNMENT

POLICY AND SCIENCE IN A MISSION SETTING

Government support for research and development (R&D) in the behavioral and social sciences is predicated on the belief that knowledge and information regarding individual behavior and social interaction can contribute to the development of effective policies. The key characteristics of social R&D in government are that no automatic match exists between knowledge-generating processes in science and knowledge-utilizing processes in public decision making and that, for most subjects, the structure of scientific disciplines does not correspond to the structure of policy interests. Further, both policy and science are dynamic in nature, each evolving in a manner somewhat distinct and independent from the other. Thus, under the best of circumstances, results from behavioral and social science study are likely to be only a blunt instrument for addressing complex policy concerns.

There is wide diversity in the manner in which federal departments and agencies have adjusted to the fundamental problem of matching knowledge-generating with knowledge-utilizing processes. One approach is to procure R&D in discrete units to fulfill specific needs. R&D of this "directed" nature can be used to develop and refine measurements of social processes, develop new or more detailed understanding of the factors underlying social problems, identify possible future social or economic issues before they become matters of pronounced public concern, or gauge the effectiveness of existing policies. An alternative approach involves government investment in the development of the sciences themselves. A wide variety of techniques, including provision of support for graduate and post-graduate training and efforts to develop new teaching facilities or to create new types of organizations in which researchers representing different disciplines can interact, can be used to ensure that the scientific expertise available to explore social problems grows at a pace commensurate with the speed and shifting emphases of policy formulation.

In a department or agency with a strong operational focus--what the Committee has called a mission setting--the social R&D function takes on added dimensions of opportunity and constraint. On the positive side, the conclusions reached or findings supplied by R&D may lead relatively quickly and easily to program changes or to better understanding about the complexities of familiar problems. In addition, R&D efforts tend to attract and help build a community of informed interests surrounding a policy area, contributing to the enthusiasm, criticism, and debate essential to the continued integrity and vitality of that policy area.

At the same time, however, R&D performance in a mission setting can be inhibited by the institutional tensions that inevitably exist among the operating systems that develop, guide, and execute policy. A new or different perspective may be difficult to achieve when social science R&D is directed predominantly in the interest of reinforcing, justifying, or implementing existing administrative or legislative policies. In addition, responsibility for many social policy areas normally extends across a number of agencies, departments, and branches in (and often beyond) the federal establishment; this can make it difficult to define the appropriate scope and objectives for R&D within an agency charged with a single aspect of that policy area.

The needs of an R&D program in a mission setting can also magnify the limitations that exist in the structure of the behavioral and social sciences for providing results relevant to policies and programs. In defining and examining significant social problems, it is often desirable to borrow and synthesize theoretical constructs, modes of analysis, perspectives, and observations from established disciplines such as economics, psychology, and sociology. This synthesis, however desirable and necessary from a government standpoint, provides scant mooring for a category of research that might be referred to as "basic" or "fundamental."* Thus, such research is difficult to describe or sustain in an agency setting.

When little consensus exists among operating and inquiry systems regarding R&D goals and emphases, scientific criteria of performance may conflict with those posited by an agency or department for its R&D program. The use of R&D results in decision making may not be a full test of R&D relevance or quality, since well-developed findings may be ignored (particularly if they conflict with established policies or beliefs) and unvalidated or poorly tested R&D findings, or negative findings, may be acted on (particularly if there is political support for such findings). Thus, a mission-oriented agency may not be sufficiently independent to maximize or optimize the tenets of good inquiry covering basic and applied concerns; it may be forced into an unnatural stance with respect to policy research; and it is not well insulated from evolving views within society of the significance (or the lack of significance) of research in the policy process.

FACTORS IN EVALUATING THE MANPOWER R&D PROGRAM

In its evaluation of the Department of Labor's manpower R&D program, the Committee emphasized four factors: substantive contributions, strategy, scientific capabilities, and management. Chapter 2 reviews the nation's manpower policy and the nature of manpower study, which provide the context for assessing the program's substantive contributions. The other three factors are assessed in light of the general criteria presented in the rest of this chapter.

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*We define "basic" or "fundamental" research as inquiry into behavioral and social phenomena within a framework provided by disciplinary knowledge and methods that is as independent and as detached as possible from the values and imperatives of the public policy process.

R&D Strategy

An R&D operation in a mission setting faces conflicting demands. It can be conceived and employed as the lead element of a system of long-term policy and program development or it can be directed as a supporting activity for current operations. The first alternative recognizes the variable, contingent, and frankly experimental nature of most social and economic policies, as well as the generally undeveloped state of knowledge regarding their impacts; it actively seeks new ideas around which more effective policies might be established and new modes of analysis to identify developing issues that may require policy attention. The second alternative emphasizes the importance of current problems, perspectives, and operations, as well as the need to apply in policy whatever scientific understanding already exists; it seeks guidance and assistance for essentially incremental decisions that must be made immediately.

The Committee believes that an effective social R&D program in a mission setting should address both the objectives of long-term policy and program formation and the knowledge needs of daily government operations. Such an R&D program would encourage:

- the co-existence of program components aimed at different policy interests and at different kinds of knowledge-generating objectives, with appropriate interactions among them;
- substantial areas of concentrated effort in relation to elements of continuing long-term policy concerns;
- flexibility in responding to changes in the requirements for knowledge at government policy and program levels;
- balance among short-, medium-, and long-term R&D activities to permit both response to immediate needs or opportunities and the systematic accumulation of knowledge necessary to advance the overall state of science in the subject field.

Without a sense of strategic purpose, an R&D program in a mission setting can easily become dissociated from both the mainstream of operational activities and the central lines of development in academic disciplines that may be relevant to policy problems.

Scientific Capabilities

The disciplines involved in the study of manpower vary markedly in the perspectives and analyses they apply to short- and long-term policy concerns. Similarly, different researchers and organizations represent specialized competencies, not only by subject area and methodological preference, but also in terms of inventiveness, originality, independence of thought, and in their ability to administer complicated R&D activities. There is no absolute scale for assessing the adequacy of the mix of sciences, scientists, and scientific organizations employed in any social R&D program. Instead, judgments must be made regarding the match achieved between those scientific capabilities and the nature of the policy issues under study. Tests of both the validity and the actual use or usefulness of R&D results are necessary in formulating those judgments.

R&D Management

Both R&D strategy and choices among disciplines, researchers, and research organizations are defined and executed through R&D management. In a mission setting, R&D management involves:

- planning to ensure sufficient coherence and balance among R&D activities in relation to present and future policy and program interests;
- procedures for identifying and selecting highly qualified performers and for monitoring their progress toward defined project objectives;
- mechanisms for communicating results to potential users and for encouraging actual use; and
- staff technically qualified to oversee and direct all aspects of the R&D program.

The character and relevance of an R&D program are also influenced by the extent to which management practices enable it to function effectively in the larger context of government operations. That implies continuing efforts by the R&D program itself to impart among high-level agency or department administrators an understanding of the nature of research and of its relationships to the policies and programs they oversee. In turn, such efforts require substantial concern among all participants for defining a cohesive R&D strategy and for creating an internal environment attractive to capable scientists and administrators to work as both program staff and performers.

Chapter 2

MANPOWER POLICY AND MANPOWER STUDY

MANPOWER POLICY

Manpower policy in the United States concerns people in relation to work. It blends social and economic objectives: personal and social fulfillment through employment and improved economic performance through increased worker productivity, mobility, and efficient utilization of the nation's labor force.

Manpower policy overlaps with other social policy areas. For instance, the character of income transfer and maintenance policy affects the rate of labor force participation. The economic development policies implicit in fiscal and monetary policies, in large-scale Federal government contracting, and in many state and local government activities affect the demand for labor both geographically and among different occupations. Manpower policies may be affected in other ways by work-regulation policies, such as those concerning collective bargaining, occupational health and safety, and employment discrimination, which influence the availability of jobs, access to those jobs by certain groups in the labor force, and the demand for particular skills.

Government manpower policies have focused primarily on the tasks of imparting or improving job skills and affording individuals greater access to employment opportunities; they have dealt less intensively with attaining more effective labor utilization throughout the economy. Traditionally, manpower policies have adopted a highly compartmentalized view of the labor force, emphasizing youth, ethnic minorities, and low-wage workers.

Manpower policies have been compensatory, attempting to make up for the apparent deficiencies of education, of labor market operations, and of government fiscal and monetary policies by dealing with the resulting unemployment, underemployment, and poverty in the labor force. In line with changes in economic circumstances and in political, social, and intellectual perceptions, the relative attention given in the manpower policy "mix" to each of these has shifted rapidly and often since the early 1960s. The threshold level of acceptable unemployment, for example, has been frequently redefined. In addition to the shifts in the policy mix, the overall Federal commitment to manpower programs has been relatively low: during 1974, for example, when over five million people were unemployed, only 460,000 program openings ("training slots") were available.

Recent manpower legislation has established a new set of rules for developing and implementing manpower policies and programs. The Comprehensive Employment and Training Act (CETA), passed in 1973, has dispersed authority for a major portion of the Federal manpower effort among state and local jurisdictions—to some 400 general-purpose units called "Prime Sponsors"—in an attempt to overcome the real and alleged shortcomings of earlier programmatic arrangements.[a] At the same time, CETA has extended new forms of "intergovernmental cooperation": state and local officials are asked to integrate manpower with other social programs, many of which may not be under their direct control. Federal officials, in turn, must find ways to address national concerns by encouraging cooperation within a system of decentralized policy administration.

For the federal manpower R&D program, which in the past gave substantial attention to strengthening manpower operations, the new dispersion of authority under CETA poses three special problems not often associated with a social R&D program in government: (a) how to identify significant points of federal influence on local decisions, which is necessary for national policy formulation; (b) how to monitor, assess, and respond to growing variation in local manpower programming; and (c) how to communicate R&D results to an expanded community of manpower practitioners (program planners, administrators, and operators).

MANPOWER STUDY

Trends in Manpower Study

Manpower study has focused on issues concerned with the supply of labor, the demand for labor, and the operation of labor markets. Progress in manpower study has been hampered by the enormous range of circumstances in which employment takes place, encompassing a wide variety of conditions and decisions and complex interrelationships among people and institutions. Research efforts about manpower and manpower problems are limited by the [illegible] of labor markets, which involve different systems of employment [illegible] various occupations and localities. Workers and jobs are also extremely diverse; [illegible] up the job hierarchy. The motivations of the employee and employer, and hence the terms and conditions of employment, have many dimensions, which involve not only economic, but also psychological, social, and governmental (collective bargaining, seniority, formal and informal work rules, etc.) aspects.

The categories used to classify and study jobs and workers necessarily include some variations in job content and in worker characteristics, attitudes, skills, and productivity, thus creating problems of measurement and comparability between employers, employees, and jobs. Job content is especially unpredictable because of its close association with relatively independent changes in technology, continuous modification in industrial processes, and variations in consumer demand for goods and services.

Labor markets are a dynamic system, the matching of workers and jobs is a continual process, with rules and information frequently changing. Since many

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[a] Chief among these shortcomings were a highly categorized array of manpower training programs with substantial degrees of overlap and conflict in operation and the absence of strong institutionalized mechanisms to ensure that programs were related to actual local needs.

[illegible]

Factors affecting the supply of labor

[illegible]

[illegible]

Factors affecting the demand for labor

[illegible]

[illegible]

draft, and intensified manpower efforts in urban ghetto areas. Equally important, some of the OMRD-supported research helped to upgrade several government data series referenced regularly in manpower policy decisions.

Other research helped reinforce commitments by the Congress and by the Manpower Administration (commitments formalized in the 1968 MDTA amendments) to improve the quality and availability of data on job openings, to aid job seekers, and to guide decisions on manpower training program content and other Department operations. (For a sample of OMRD-supported work related to labor market information systems, see 35, 139, 228, 240, 243, 167, 230, 42.)

New Knowledge and Policy Development

The Labor Force. Since 1965, OMRD has supported the National Longitudinal Study of Labor Force Behavior, known as the Parnes Study (after its director), a large-scale, scientifically structured data and analysis effort that has tracked the employment experiences of four different groups of workers representing four major segments of the labor force (177, 178, 181, 183, 123, 124, 180, 278, 207, 210, 189, 190, 209, 176, 200, 125, 182, 179, 44, 122, 160, 57, 206, 118, 61, 171, 235, 67, 92, 164). In addition to the work done by the Study staff itself, the Parnes data have been made available for use by researchers throughout the country. (The Parnes project has also been a significant training ground for a number of younger researchers in manpower.)

Although full analysis of the Parnes data is at a relatively early stage, significant findings have already emerged with respect to:

- identifying factors associated with job acquisition, including education, health, information, formal and informal occupational training, occupational structures, and assessing their differential effects on individuals' employment experiences;
- explaining variations in labor force participation and unemployment rates among different worker groups (primarily defined by race) in terms of job satisfaction and barriers to employment, such as poor health or discrimination, that may limit access to entry-level jobs or to promotional ladders; and
- revealing the relative importance of attitudes toward work in determining occupational mobility and levels of labor force participation, especially among women.

Because of its comprehensive nature, multidisciplinary focus, and longitudinal approach, the Parnes Study has been producing results that could not have been achieved in separate studies of specific population segments or local situations.* The data represent a tremendously rich resource for further examination of labor force dynamics, including the employment behavior of family units and the importance of total family income in that behavior, in addition to more extensive analysis of the topics already explored. The data will also allow study of common elements in the operations of different labor markets. Findings from future studies based on the Parnes data or similar longitudinal inquiries should also be important in the implementation and evaluation of certain manpower policies and programs of the Labor Department's U.S. Employment Service, the Office of Federal Contract Compliance, and the Wage and Hour Division, which have a direct influence on manpower utilization in the private sector. (For examples of other OMRD-supported work pertaining to the labor force, see 21, 36, 116, 211, 86, 75, 64, 10, 65, 227, 68, 9, 186, 91, 12, 155, 187, 126, 212, 275.)

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*Longitudinal study also has several disadvantages: it is very costly, requires an extended time commitment to produce usable results, raises serious methodological problems, and calls for careful and consistent management. The relative success of the Parnes Study despite such difficulties is a great tribute to the researchers and OMRD staff involved.

Labor Markets. A comparatively smaller body of OMRD-supported research has been focused on labor market operations. However, several empirical and theoretical studies have significantly influenced understanding of manpower problems and, as a result, the context of policy thinking in the field.

The empirical and theoretical research of "dual" or "secondary" labor markets provides one example of the nature and value of those studies (67, 49, 56, 6, 64, 18, 62, 102, 227, 48, 115). The theory maintains that the secondary labor market, which is characterized by low wages, absenteeism, high turnover, and little opportunity for training or for promotion into higher level jobs, operates to keep disadvantaged workers disadvantaged. Even though the validity and analytic power of this theory is intensely debated, it has been seminal for manpower in two ways: (a) focusing the attention of national and local program administrators on the types of training and placement activities conducted under DOL auspices and (b) illuminating several lines of inquiry for future R&D, including employer and employee behavior within firms and the relationships between manpower and macroeconomic (fiscal and monetary) policies for combating inflation and unemployment.

Significant research pertaining to labor market operations has also been conducted on the subject of "job search" (213, 218, 225, 228, 229, 266, 41, 226, 230). Attention has been given to explaining the relative duration of search among several different classes of workers in terms of their attitudes, values, and expectations; to the effectiveness of different job search methods; and to the influences of different job information sources on search outcomes. Findings on this last point have prompted both OMRD and operating agencies within the Manpower Administration to explore a new range of possibilities for job information and job referral procedures (35, 228, 26, 119, 148, 158, 274, 101).

Job search has been a topic of manpower study that has benefited greatly from cross-disciplinary fertilization. Specifically, work by sociologists has challenged the validity of the job search models of other disciplines, particularly economics, prodding further articulation and refinement of the assumptions and theories on which those models were based. A recent study (88) shows that, for professional, technical, and managerial jobs, job search is often not the method used for locating job opportunities (also see 25); rather, labor market information is transmitted as a by-product of other social processes. Therefore, the search model promoted by some economists (see, for example, 231), based on deductions from theory founded on data regarding lower-level jobs, does not fit the supply side for high-level jobs.

Other OMRD studies have focused on geographically or occupationally defined labor markets. These include urban (75, 87, 223, 105, 104, 149, 145, 200, 100, 103, 102, 217, 185), small city (276), and rural labor markets (264, 151, 167); various agricultural labor markets (162, 27, 51, 234); markets for particular professional occupations (10, 25); and labor markets in particular economic sectors, such as health, government, and construction (163, 253, 109, 81, 196, 42, 153, 84, 73, 58, 219, 155).

Work has also been sponsored exploring informal labor markets: social networks through which job information is transmitted and which may reinforce or weaken certain attitudes toward work (8). A small number of projects have been sponsored to model or simulate flows of workers through various labor markets (105, 277, 16, 115, 274, 270) and to identify potential sources of labor market disruption (173). These efforts have added to the general stock of knowledge and theory concerning employment prospects and problems; they have also highlighted some of the relationships between manpower and other major social and economic policies (for example, 11).

Labor Market Deficiencies. A strong concern for labor markets has led OMRD to analyze possible and actual deficiencies in labor market operations. Studies have examined hiring practices (46, 97, 161, 87, 239, 106), aptitude testing (98, 142, 63, 96), and promotion standards (120, 153, 224). Some effects of pension plan provisions and of various forms of unemployment compensation (such as severance pay and Unemployment Insurance) on worker mobility and job search have been assessed (130, 17, 15, 43).

There have also been studies of licensing and its influences on labor mobility and entry in certain occupations. This work (for example, 214) has incorporated the perspectives of several disciplines, including economics and psychology. Work on this topic has been especially provocative for several reasons: (a) it shows that barriers to mobility and entry imposed by licensing help to explain the contradiction apparent in the co-existence of overall high unemployment and labor shortages in some occupations; (b) it illustrates ways in which occupational regulations promulgated to achieve non-manpower purposes (consumer protection, for example) can adversely influence manpower development and utilization; (c) it reveals a severe problem (and adverse effects for manpower) with widely dispersed authority for formulating and implementing occupational regulations; and (d) it points to a pressing need to study the manpower consequences of other forms of employment regulation.

Another emphasis in OMRD's research on labor market deficiencies has been employment discrimination (7, 65, 99, 246, 254, 92, 217, 98). A substantial share of OMRD's work on this subject has been concerned with identifying various institutional barriers to equal job opportunity for racial minorities (203, 150, 206, 67, 87). These barriers include employer hiring and promotion policies and practices (63, 161, 46, 23), attitudes toward minority group workers among firm managers and employees (117), certain union activities (152, 196, 204), and problems in measuring job content (272, 202).

The most visible impact of this research has been on the apprenticeship system. A 1965 study (152) that identified serious discrimination against blacks in entry and training for certain jobs, as well as ways in which such discrimination might be eliminated, led to major program thrusts by the Department of Labor and by many unions. (For examples of later OMRD-supported work related to apprenticeship, see 153, 69, 174, 236, 45.) As a result, the number of minority group members entering skilled occupations through apprenticeship has been significantly increased.

Generating New Programs

Apprenticeship is only one example of an R&D contribution to manpower programming. Between 1962 and 1975, the largest portion of the manpower R&D budget was committed to demonstrating, developing, and testing new programs and techniques for training and service delivery, primarily through E&D projects. This followed very closely the policy emphasis, apparent in manpower legislation, on programs to compensate for the deficiencies of education, labor market operations, and broad economic management.

Especially during the 1960s, E&D projects were operated primarily as catalysts for social action, with the formal generation of information and insight regarding operational problems an important, but subsidiary concern. Thus, E&D projects sought ways to extend and adapt manpower training and services to particular segments of the labor force. These efforts paralleled and supported the development of legislation, regulations, and categorical programs aimed at the manpower problems of youth (247, 136, 268), older workers (137, 221, 222), ethnic minorities (135, 113), low-wage earners (28, 31, 197), the poorly educated (232, 52, 55, 70, 233), and migrants and migrant workers (1, 2, 211, 37). There were also projects that focused on workers in particular subprofessional and professional occupations--such as those in service occupations (34, 216, 242, 263) and in aerospace engineering (47)--in which unique economic or social circumstances were affecting employment opportunities or conditions.

As a by-product of such E&D activities, some knowledge has been gained about how individuals behave and interrelate in the labor force and how institutions operate in the labor market. Although there have been few attempts to draw general observations and conclusions from this work, important concepts about training and services were introduced into the policy context surrounding manpower decisions. One was that, given sufficient time and resources, it is possible to train nearly any individual in a marketable skill. Any particular program would still be judged in terms of the relative cost and benefits of the training, but the "trainability" of some labor force groups became a much more minor issue than it had been in the early stages of manpower policy development. Another critical concept was that outreach services are necessary to attract the participation of the disadvantaged in manpower programs. E&D projects also identified a strong political dimension in manpower programming, resulting mainly from conflicting motivations and overlapping responsibilities among labor market institutions. This has been most clearly reflected in problems of local coordination in the delivery of manpower services.

Demonstration and development activities not only influenced policy formulation and supported a number of early MDTA amendments that extended manpower services to special groups in the labor force, but also made substantial contributions to the design or improved operations and application of such categorical manpower programs as on-the-job training (OJT) (175, 55, 52), Neighborhood Youth Corps (NYC) (251, 59, 60, 198, 143, 70, 159, 54, 267), Job Opportunities in the Business Sector (JOBS) (112), and others (107, 262, 170, 271, 232, 236, 273, 85, 257, 261, 108, 50, 172, 39). On several occasions, "models" for an entire program or for major program components invented, demonstrated, and refined through E&D projects were infused directly into manpower operations. In other cases, such models underwent relatively long periods of testing before being accepted and used by the Department.

A large number of demonstration and development projects contributed to a support structure for manpower programs, developing, testing, and applying materials for instructing manpower trainers and counselors (111, 147, 238, 251), instructional materials for manpower trainees (78, 29, 237), and non-culturally biased instruments for measuring the occupational skill interests of those trainees (110, 157). Demonstration and development projects have also given continuing attention to strengthening the operating procedures of Manpower Administration agencies such as the U.S. Employment Service (1, 2, 140, 118, 90, 4, 165, 32).

The program-generating impetus in R&D activities diminished in the late 1960s and early 1970s as manpower programming matured and then as a result of CETA (passed in 1973), which gave local and state officials authority for program development and innovation. During recent years, R&D projects have had two major foci: the design and assessment of new program approaches for hard-to-employ groups, such as alcoholics (146, 261), criminal offenders (168, 195, 156, 261, 138), and drug addicts (83, 127, 261), and methods of delivering services, such as job counseling and placement for minority group women, to groups that traditionally have not been well served by such labor market institutions as the Employment Service, union hiring halls, and private employment agencies (119).

Procedures generally employed in R&D projects also changed during the late 1960s and early 1970s. Projects were earlier conducted mainly as tools to promote policy action; more recently, increased concern has been shown for more careful analysis to ensure broad applicability of findings and results (53, 188, 146, 138). The 1970 merger of the separate manpower research and R&D offices precipitated stronger links between the diverse modes of inquiry and discovery that each had previously pursued (for example, 150 and 119, 86 and 53, 188), including a more intensive application of empirical methods for measuring outcomes in demonstration, development, and experimental efforts. With manpower policy evolving at a reduced pace and increased budgetary pressures evident in manpower programming, there has been less Departmental interest in program initiatives and greater hesitancy to assume the risks attendant to untested social invention.

Anticipating Future Manpower Concerns

OMRD has supported some work that attempted to anticipate future manpower policy concerns. This emphasis has not been as pervasive in the R&D program as efforts to measure and analyze manpower problems and to generate new manpower programs for two reasons: (a) the Bureau of Labor Statistics and various offices in other federal agencies have primary responsibility for labor force, employment, and economic projections; and (b) the Manpower Administration has experienced a period of rapid change since 1962, tending to focus its activities, including R&D, primarily on short-run operational interests rather than on long-term policy development.

Nonetheless, there are examples of R&D projects that explored certain issues well before they became major policy concerns, including studies to:

- estimate the manpower requirements that would be necessary to achieve national goals for economic and social progress (131),
- develop and improve methods to assess the manpower impacts of prospective changes in federal spending, both nationally and for individual labor markets (32, 33, 134, 133, 82);

- examine potential sources of labor market disturbance, such as illegal immigration and increased automation in particular industries (171, 155); and
- measure the potential labor force impacts of major dislocations in the economy, such as exhaustion of Unemployment Insurance benefits during a period of substantial and sustained unemployment (38, 154, 37, 151).

Many of the findings derived from this kind of work have been introduced into the policy arena through discussions contained in the annual *Manpower Report of the President* (see, for example, 258, p. 139ff).

Tools for Evaluation

Even though evaluation as such is not a formal OMRD responsibility (the Manpower Administration has a separate Office of Manpower Program Evaluation), R&D activities have helped to strengthen methods for assessing policy and program effectiveness. Part of this contribution has been indirect, resulting from OMRD's independent interest in analytic assessment of R&D projects and in accurately assessing the effectiveness of established MDTA programs (1, 2, 232, 235, 32, 45, 91, 247, 184, 13). The relatively high value of on-the-job training, outreach services, and educating the disadvantaged in basic literacy skills was established in such a manner. However, there have been other instances where findings regarding program effectiveness, particularly negative findings, have not had significant impact--in the Work Incentive Program (WIN), for example (86, 64, 18, 72, 194, 79, 121).

More directly, OMRD research has contributed to the development and use of appropriate techniques for gauging program impacts on individuals. Several studies helped to promote the adaptation of human capital theory (following Becker, 14, and others) to the measurement of training program effects (91, 247, 220, 20). These efforts should be viewed against the backdrop of broader efforts to advance quantitatively oriented evaluation research (including work by other R&D units in government) and to strengthen methods of program design and assessment through greater and more rigorous use of control group and random selection techniques. While there are still major problems in the accuracy and usefulness of evaluative research techniques, the overall quality of evaluative studies in the manpower field has been improved, and such studies have sometimes provided important indications of empirical and theoretical research needs.

Conclusion

In the Committee's judgment, the most important substantive accomplishments of the manpower R&D program have come in four areas:

1. The collection and analysis of labor force data, particularly under the National Longitudinal Study of Labor Force Behavior (the Parnes Study), permits more thorough and detailed examination of the economic, institutional, psychological, and social factors underlying employment success than ever before possible. These data lay a strong foundation for further study of manpower problems across the entire labor force, utilizing the

perspectives and methods of a wide range of behavioral and social science disciplines.

2. The development of new theories to illuminate complexities of labor market operations, especially theories that help explain relationships between market imperfections and individuals' employment experiences (which have posed challenges to other theoretical analyses and conventional views of manpower problems), provides new grounds for discussing the role and effectiveness of manpower policies.

3. Program models and techniques for serving the manpower needs of the disadvantaged have been designed and implemented.

4. New methods for assessing manpower policy and program effectiveness have been refined and applied.

This work has been characterized by sustained effort and a relatively high concentration of program resources and by a more stable and goal-oriented focus than other ORD work. Furthermore, this work has been pursued by performers drawn from a relatively wide array of disciplines, in contrast with efforts directed toward other subjects that seem to have been dominated by one or another discipline.

Along with ORD's major accomplishments, there have been subjects of potential significance that have been relatively underemphasized—touched tangentially in a variety of ways yet never fully confronted, partially developed, or approached and then dropped. These reflect not only gaps in the manpower R&D program, but also major deficiencies in the overall manpower knowledge base. In the Committee's judgment, there are six subjects or problems that have been identified in ORD projects, but not systematically or directly pursued over time, that offer opportunities for measurable gain in understanding for manpower and manpower study.

1. A large number of diverse and scattered studies note the concurrent existence of locally severe unemployment and significant labor shortages in several occupations. While such facts have been a matter of general concern in much manpower study, their implications for labor market theory and for training policy have not been considered and analyzed thoroughly.

2. Another collection of projects (noted above) highlights the importance of cultural factors in the labor market experiences of the disadvantaged and some of the ways in which the cultures of the "minority" and the "majority" can interact with negative consequences for both "minority" individuals and public policies that attempt to promote effective manpower development. Such findings point to a need for new studies, using the theoretical constructs, perspectives, and techniques of such disciplines as applied anthropology and sociology, to be integrated with the approaches traditionally employed by economists in conducting labor force investigations.

3. Several studies have explored job search behavior as a potentially significant element in or modifier of conventional labor market theory,

Communicating and Using Results

The Committee finds that OMRD's Utilization Division has a technically competent staff, but its effectiveness has been hampered by small size, by insufficient resources (since communicating and promoting the use of R&D results is expensive), and by extremely limited opportunity to interact with potential R&D consumers. The Committee finds that a great deal of useful knowledge generated by the manpower R&D program is not being used, either in the Department of Labor and other federal agencies or at the level of state and local manpower programming. While this lack of use can be attributed to many factors, the basic problem appears to be limited capacity and interest within the manpower community generally for incorporating new knowledge into the flow of day-to-day operations or into long-range planning.

This phenomenon is not unusual; utilization is the most formidable challenge for all R&D operations--not only in fields of behavioral and social inquiry, but also for the physical sciences--involving multiple layers of interpretation and action. Even in the private sector where firms have extensive control over communications processes and internal decision making and in certain government agencies where elaborate systems have been designed in an attempt to ensure rapid assimilation of R&D results, effective utilization remains an elusive goal, just as likely to occur in an unplanned fashion as in a planned one and more often than not on an irregular basis. In order to strengthen utilization, concerted and continuous effort is necessary by both knowledge producers and knowledge consumers.*

Staff Capabilities

The Committee finds that the present OMRD staff, because of a recent precipitous decline in size and overall competence, has only a marginal capability to manage the manpower R&D program properly. This situation reflects an all-too-familiar story in government R&D operations over the past several years: pressures to reduce the size of the federal establishment, declining budgets for social programs, hiring freezes, restrictive staffing guidelines imposed by the Office of Management and Budget (OMB), and inflexible hiring procedures promulgated by the Civil Service Commission. Obviously, not all of these factors have been amenable to direct control by the Department of Labor and few could have been countered by OMRD itself.

Nonetheless, the complexities of both social science inquiry and manpower policy and program decisions have grown beyond the capabilities of many of the current office personnel. Shortcomings in the range and depth of Office staff skills that have appeared during the past several years have had serious adverse effects on all essential R&D management functions, including planning, performer selection, and the dissemination and utilization of project results.

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*See Chapter 9 for a more detailed discussion of manpower R&D utilization.

R&D IN THE DEPARTMENT OF LABOR SETTING

The Committee finds that OMRD's particular organizational location has affected the manpower R&D program in significant ways. The Office's functional separation from policy-making echelons and from R&D producers and consumers in and outside of the Department has created difficulties in cooperative approaches to planning and priority setting, in communicating R&D findings, and in ensuring a stable and appropriate level of staff competence. These difficulties are particularly acute for some functions, such as planning, for which the Office of the Assistant Secretary for Planning, Research, and Evaluation (ASPER) has overlapping responsibilities.* At the same time, however, the separation has been seen by some observers and participants as an advantage, enabling the Office to maintain continuous and cumulative support for a few areas of long-term R&D interest--which have often been the source of the most striking program contributions--and to pursue relatively coherent strategies for strengthening individual and institutional capabilities in manpower study.

There are no "ideal" locations for an R&D office and no proven patterns for an R&D system. Rather, there are advantages and disadvantages associated with any location or overall organizational structure. The Committee has considered suggestions for relocating or reorganizing the manpower R&D operation in the Department of Labor and concludes that the costs attached to the various possible changes far outweigh potential benefits (both immediate and future). Moving the function to "higher" levels in the Department might increase opportunities to focus on prospective policies in manpower, but would isolate the R&D program from operational problems and issues. A move closer to operational levels, perhaps through some form of decentralization, might increase opportunities to contribute to more effective manpower programming, but would create major difficulties of project redundancy and of isolation from policy development and implementation on a national level. Neither alternative would necessarily dampen pressures that tend to focus the program on short-term, rapidly changing priorities nor guarantee an appropriate diversity of performers and methods in manpower study.

The third possibility, to split the effort--with some activities organized for exclusive direction to policy echelons and others to operating levels--would in the Committee's judgment constitute the worst of all possible worlds. Serious gaps would be created in the understanding of policies as they relate to programs and in the understanding of programs as they relate to policies.

To some degree, problems of this kind characterize all mission-oriented R&D operations in government. Desire for immediately relevant R&D findings is a natural derivative of the normally brief tenure of higher-level policy and program officials. Creating and maintaining open lines of communication to achieve agreement on priorities and to encourage innovation are problems for virtually all large organizations, public and private. Procurement practices are seldom guided by a clear sense of their effects on project performance and quality. Most government R&D units have been internally weakened by various hiring restrictions imposed during the past four or five years. Moreover, government employment, at least at a staff level, has not traditionally been attractive to technically qualified administrators and researchers in the social sciences. Experience with structural and organizational changes aimed at more effective R&D management has shown few, if any, unqualified successes.

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*See Chapters 7 and 9 for a full description of OMRD-ASPER interactions.

The Department of Labor has regarded manpower R&D primarily as a service function and has managed the R&D program as a small adjunct to operations, predominantly from the standpoint of current issues and interests. Although that approach has resulted in some significant and useful contributions to improved policy execution and program design, the Committee believes the manpower R&D program has been somewhat out of balance in its focus and that important matters of long-range policy development and scientific advance have therefore suffered from relative lack of attention. Nowhere in the Department is there a consistent view of R&D as an informing mechanism for guiding manpower policy in the broadest sense: exploring future courses of action under alternative economic and social assumptions, identifying opportunities and means to reduce inconsistencies and conflicts that can and do arise between manpower and other areas of government policy, and promoting growth within and among academic disciplines to serve prospective needs for policy and program study.

Chapter 6

RECOMMENDATIONS

This chapter presents the Committee's recommendations for strengthening the manpower R&D program of the Department of Labor. The Committee's recommendations cover:

- more balanced patterns of support for manpower study;
- continued investments in developing scientific capabilities;
- improvements in R&D management;
- increased attention to problems of utilization; and
- a realistic appraisal of R&D resources and budgeting.

The recommendations are interrelated since it is doubtful that changes in emphasis or practice in any one area would significantly influence an operation as complex as that conducted by the Office of Manpower Research and Development (OMRD).

There are, however, two key recommendations: that concentrated and continuous attention be given to a set of basic concerns for manpower R&D and that OMRD be provided with a technically competent staff. These are preconditions for all other desirable changes; both require direct action by the Secretary of Labor and more consistent policy-level consideration of R&D matters than there has been in the past.

PROGRAM CONTENT

The Committee's assessment of manpower R&D program results highlighted the value of extended efforts to explore subjects of fundamental science and policy concern. That assessment indicated the need for a more consciously patterned structure of R&D support in manpower--a structure that encourages balance between a stable, continuing focus on the factors underlying manpower problems and an ability to respond flexibly to unanticipated developments in manpower policy, programming, and research.

Identifying the appropriate levels of support for particular projects on a year-by-year basis in order to create and maintain such a balance is a difficult task. It requires consensus within the entire Department about specific short- and long-term R&D objectives. While some of the Committee's recommendations for planning and review procedures would facilitate the development of that consensus, only strong Departmental leadership--which could be exercised most visibly through direct commitment by the Secretary of Labor and by the Assistant Secretary for Manpower--will guarantee serious and sustained consideration of an appropriate manpower R&D program for the future. The Committee believes the following recommendations cover major elements of such a program.

Opportunities to Build upon Current Knowledge

The strengths of ORD-supported manpower study present clear opportunities for promoting further advances in the understanding of manpower problems and better informed choices regarding well-established issues of manpower policy and program concern.

> *The Committee recommends that the following subjects continue to receive major ORD support:*
>
> *Longitudinal labor force research, building upon the Parnes Study.* This work should be continued beyond the present cutoff point in fiscal 1976: (a) by using the data and findings already derived as a basis for developing and conducting other longitudinal research activities that, for example, would further illuminate the transition from school to work, career paths, and the relationships between manpower development, occupational employment patterns, and demographic change; and (b) by systematically analyzing the longitudinal data already available with particular regard to such problems as labor market discrimination, underemployment, income stability in family units, and the regulation of working conditions and standards.
>
> *Empirical and theoretical studies of labor markets.* These studies should address: (a) the impact of institutional policies and practices, especially those within firms, on occupational mobility, discrimination in hiring, promotion, layoff, and the effective utilization of manpower resources and (b) labor market operations, with more intensive application of the methods of social science disciplines other than economics.
>
> *Studies of the labor market problems of the disadvantaged.* Special attention should be given to cultural factors, such as language, sociopsychological elements in the formulation of attitudes, aspirations, and beliefs with respect to work, and the barriers to employment and promotion resulting from the attitudes of non-disadvantaged workers.
>
> *Studies to advance methods of evaluation research.* Particular emphasis should be placed on developing measures and procedures for more accurately assessing the significance of institutional variables, such as staffing, program structure and coordination, and employer relations, in the delivery of manpower training and services.

Opportunities for New Knowledge Related to Continuing Issues

Several subjects that have been relatively underemphasized in ORD's activities are important for manpower policy and program decisions. These are subjects in which significant gaps in the current knowledge base require attention.

The Committee recommends that the following new subjects receive major ORD support:

The demand side of manpower problems. In particular, attention should be given to identifying, measuring, and analyzing relationships between manpower utilization and technological change that shift requirements for various job skills and occupations and affect worker productivity in various sectors of the economy.

The effects of collective bargaining and labor agreements on manpower utilization. This should include study of the administration of such agreements within firms, for particular occupations, and at the national level.

The interrelationships between manpower policy and other social and economic policies. In order to more precisely determine the effectiveness of alternative approaches to problems of unemployment, underemployment, and poverty in the labor force, study of this subject requires participation by a wider range of behavioral and social scientist researchers than have been involved to date.

Opportunities for Knowledge on Developing Issues

A number of policy and program issues--several of which ORD has been studying on a limited basis--are becoming significant concerns in manpower policy and programs.

The Committee recommends that ORD's exploratory efforts in the following subjects be expanded:

The implications of continued high levels of inflation for manpower development and utilization and for the effectiveness of various manpower policies.

The impact of the Unemployment Insurance system on levels of unemployment.

Illegal immigration and its impacts on labor markets.

The behavior of political units under CETA. This should include study on a comparative basis, as such behavior affects training program outcomes and the balance between manpower supply and demand in local labor markets.

The impacts of various Department of Labor regulatory activities on manpower development and utilization. The most important such activities to be considered are occupational health and safety regulations and enforcement of federal contract compliance, equal pay, and age discrimination laws.

The impacts of increased labor force participation by women. The most significant impacts to be explored involve manpower utilization within firms, employment discrimination policies and enforcement, and family incomes.

Opportunities for Increased Use of Social Science Methods

While effective manpower study requires a wide diversity of approaches to research, there are opportunities for ORD to apply particular social science methods more frequently, more intensively, or in different ways in the overall program. Such emphases might contribute to higher quality findings and to R&D results that are more relevant to issues of policy implementation and effectiveness as well as to problems in program operations.

The Committee recommends that ORD extend the use of certain social science methods:

Experimental techniques in program design. These should be used in the development and assessment of new treatment modes for specific manpower program client populations and in exploring alternative organizational arrangements for delivering manpower services on a comprehensive areawide basis.

Continuing monitoring of demographic, occupational, and technological trends. This could provide the basis for extensive analysis of possible future manpower problems and their implications for manpower policies and would also provide a focal point for intramural research by ORD staff.

Efforts to strengthen techniques of local labor market analysis. This work should include pilot studies in several jurisdictions focused particularly on methods of collecting and analyzing [illegible] labor force and labor market data.

This program for future manpower study is ambitious, reflecting the serious nature of current manpower problems and the need for new knowledge to strengthen manpower policies and programs.

SCIENTIFIC CAPABILITIES

The Committee has noted ORD's major contributions to the range and quality of personnel and institutional resources for manpower study. ORD's efforts have taken three programmatic forms: small grants for doctoral dissertations and

policies, both substantively with respect to programs of public service employment and administratively with respect to CETA, mean that a properly designed and conducted manpower R&D program requires sizable resources. Yet at a time when a range of new and highly significant demands have arisen for knowledge to strengthen government decisions in manpower, the Department of Labor has reduced OMRD's operating budget by nearly 30 percent. Inflation has eroded the Office's purchasing power even further.

The Committee believes that present and projected budgetary levels for OMRD are not adequate to meet the knowledge requirements of manpower policy for the 1970s or for the expansion of manpower programs. Without sufficient resources, important opportunities for strengthening policies and programs and for improving manpower study will be lost. In addition, a substantial portion of past R&D investment will remain unproductive without resources to promote application of current knowledge and to pursue promising lines of inquiry that have been uncovered. Most visibly, the Department may not realize the large and direct benefits from the Parnes Study--data collected at an expense of over $15 million--because OMRD is not in a position, in terms of funds or staff resources, to formulate and commission an appropriate series of follow-up policy studies.

The Committee recognizes that allocating scarce resources among numerous national priorities is and must remain a political process. It is important, however, that this process for R&D be guided by an appreciation of opportunities for advancement in policy and science as well as by judgments regarding the prospective costs and risks attached to those opportunities. OMRD has been unique among federal R&D units in its support for studies taking a relatively broad view of labor force, labor market, and manpower policy problems. It is not likely that reductions in its budget will be counterbalanced by increased expenditures along these lines on the part of other R&D units or by private sources of support.

Thirteen years is not a long period of time in the life and development of an R&D office in a mission setting. OMRD has made major contributions in developing manpower study so that a more focused R&D program is both feasible and desirable. The pace of further progress and increases in the usefulness of future R&D efforts will depend in large measure on resource commitments.

Budget

The Committee has proposed an ambitious program of study and investments in scientific capabilities in light of current and future knowledge requirements in manpower. To enable OMRD to effectively pursue such a program, the Committee has recommended changes in R&D planning and performer selection and outlined ways to achieve needed improvements in staff capabilities. To enable the Department to realize greater direct benefit from all manpower R&D activities, the Committee has recommended steps to strengthen OMRD's role in utilization, to enhance utilization capacities within the Labor Department, and to encourage the use of R&D results by local and state officials under CETA.

With a budget remaining at the current level (and even without significant inflation over the next several years), it would be extraordinarily difficult to pursue the kind of systematic and properly supported R&D program that is needed in manpower. Even if the present OMRD budget were to be doubled or tripled, that would provide the manpower R&D operation with little more purchasing power than it had during the mid-1960s. At the same time, the Committee is not in a position, indeed views it unwise, to specify an optimal amount for manpower R&D program expenditures in the future. That determination should be a function of the extent to which the ideas presented in this Report are accepted by the Department of Labor.

> *The Committee recommends that the Secretary of Labor initiate an extensive analysis of the long-range resource requirements for the manpower R&D program.* This analysis should include consideration of the specific lines of inquiry to be addressed by OMRD, of the support necessary to build and maintain appropriate scientific capabilities in manpower, and of establishing more effective R&D management and utilization.

Budgeting Process

Many of the activities that OMRD could undertake will require continuous attention over many years, particularly with respect to longitudinal research, extending scientific capabilities in manpower, and strengthening processes of R&D planning and utilization. Such efforts can all be adversely affected by the uncertainties of the annual budget-making cycle within a federal department. Since it is unrealistic to expect a fundamental change in the nature of that cycle, it is important for the Labor Department to adopt procedures that minimize those uncertainties for its manpower R&D program.

> *The Committee recommends that the Department of Labor conduct budget and program analyses every five years to determine long-range resource requirements for manpower R&D, possibly including independent review of OMRD.*

PART II

MANPOWER R&D IN A MISSION SETTING

Chapter 5

NATIONAL MANPOWER POLICY

Manpower did not exist as a separate policy concern until the post-World War II era, and it did not attain wide recognition as a subject of major government interest until the early 1960s. Until then, issues and problems of work and workers were considered part of economic, education, or (for the unemployed) welfare policies. As a new field, manpower policy has been particularly subject to differing and changing definitions of its boundaries by academicians, politicians, policy makers, and program operators. It is within this context that the manpower R&D program has functioned.

THE SCOPE OF FEDERAL MANPOWER POLICIES AND PROGRAMS

Manpower policy is characterized by a concern for people in relation to work. Manpower policies and programs include efforts to improve workers' ability to survive, adjust, and advance in an ever-changing labor market environment, and efforts to improve the labor market's ability to utilize an ever-changing array of individual capabilities. Manpower policy blends social and economic objectives: to provide opportunities for self-support and fulfillment through employment and to enhance economic performance through increased labor productivity and mobility. It shares several elements with other policies, especially those for education, fiscal and monetary management, and income maintenance, but it cannot be regarded as synonymous with any one of them.

At the time of its emergence as an identifiable area of government activity in the early 1960s, manpower policy was defined in relatively limited terms--as an instrument for reducing unemployment by assisting (through retraining) workers displaced because foreign trade had forced their employers out of business or because automation had eliminated their jobs. However, the manpower purview has expanded rapidly over the years, and by 1975 it also included: expanding public and private sector job opportunities, particularly for disadvantaged members of the labor force; increasing the number and productivity of workers in specific occupations to reduce unemployment and inflation; raising worker incomes; facilitating economic development in certain regions; reducing welfare rolls; re-employing returned veterans; combating job discrimination by encouraging equal employment opportunity; easing the transition from school to work; and strengthening job search and matching processes. The relative degree and kind of emphasis given to each aspect of manpower has changed in light of evolving political, social, and bureaucratic circumstances and perceptions, but the central orientation of manpower policy has been toward four general topics: unemployment, underemployment, poverty among workers, and productivity.

Three broad types of programs are essential for implementing manpower policy: (a) programs directed to the supply of labor; (b) programs directed to the demand for labor; and (c) programs concerned with the interchange between the two labor market operations. Supply programs provide skill training and ancillary services, such as pre- and post-placement counseling, testing, living allowances, day care, and basic literacy education to prepare a jobless person for work or to upgrade a worker from one occupation to another. Demand programs focus on the generation of new jobs in the labor market, on the utilization of workers in the economy, and on individuals' access to existing jobs. Access includes discrimination and credentialism in hiring standards; monitoring changing job requirements to anticipate and define needs for worker adjustment and training; and job creation, which can be indirect, through subsidies to the private sector, or direct, through provision of special jobs in public agencies. Programs concerned with labor market operations help match workers and jobs, through collection of information from employers regarding current and future job vacancies, referral and placement services to job-seekers, and mobility assistance when an individual must relocate to find appropriate employment. The primary emphasis of manpower policy and programs has been overwhelmingly on the supply side.

Government programs are not the only ones focusing on labor supply, labor demand, and labor market operations. Private organizations and institutions offer training and other services related to labor force skill development. Unions, newspaper advertising, and private agencies play a large role in the labor exchange function. Business firms, unions, and professional associations have a significant effect on the demand for labor, on worker selection, and on employment standards. However, government regulation exerts substantial influence on private sector activities.

Furthermore, other government programs have substantial and explicit manpower content or direct impact on individuals or groups of workers. Fiscal and monetary policies help determine employment levels; the recent U.S. experience with a wage-price control program directly affected the demand for labor. Education policies and programs have a direct influence on skill development. Certain income redistribution programs, such as Aid to Families with Dependent Children, include work and training provisions that affect labor force behavior. Federal and state legislation and regulation with respect to labor relations, wage standards, and occupational health and safety affect both the access to jobs and the demand for labor. State and regional industrial development programs have a marked impact on the geographic distribution of employment. The entire equal employment opportunity enforcement apparatus influences access to jobs. In certain occupations, entry requirements are regulated by local, state, or other public or quasi-public bodies.

Finally, some government policies and programs have second-order effects for manpower development and utilization. These range from encouraging greater private investment in scientific and technological development, which has increased demand for skilled workers, to commodity price supports, which have both encouraged the introduction of new agricultural production techniques and contributed to selective displacement of the rural labor force.

MAJOR DEVELOPMENTS IN MANPOWER LEGISLATION

Many elements of what has come to be known as manpower policy were present prior to and during World War II. These included mobility efforts, under the Homestead Acts; educational programs, under the Northwest Ordinance of 1785, the Land Grant Colleges Act of 1862, and the Smith-Hughes (Vocational Education) Act of 1917; job matching programs, implemented on a temporary basis by the Federal government during World War I and later revived and permanently established under the Wagner-Peyser Act of 1933; the unemployment insurance provisions of the Social Security Act of 1935; and the Servicemen's Readjustment Act (GI Bill) of 1944.

The Employment Act of 1946 signified the abandonment of pre-1930 views regarding the relation of government to employment and unemployment, giving explicit recognition to the Federal role. Under its terms, the nation began to grapple with the complex problem of avoiding economic recession and depression accompanied by high levels of joblessness. It states:

> ...it is the continuing policy and responsibility of the Federal Government to use all practicable means consistent with its needs and obligations and other essential considerations of national policy...to foster and promote... conditions under which there will be afforded useful employment opportunities...for those able, willing, and seeking work, and to promote maximum employment, production, and purchasing power.

The Act is a unique law, defining specific policy goals without describing specific means for their implementation.

The first concrete steps toward a more active government involvement in manpower were taken during the late 1950s and early 1960s. The National Defense Education Act and legislation establishing the National Science Foundation both included provisions for increasing and improving manpower resources in highly technical occupations in which serious skill shortages were thought to exist. The Area Redevelopment Act of 1961, whose primary thrust was capital investment, included a small training component. However, raising labor force skill levels was not seen as a significant instrument for attracting new industry to depressed regions, the main concern of that legislation. In a similar fashion, the nominal program for retraining workers displaced as a result of foreign competition, contained in the Trade Act of 1962, was peripheral rather than central to the purposes of that Act.

In contrast to these tentative efforts, the Manpower Development and Training Act (MDTA) of 1962 called for extensive government intervention in labor markets. At that time, the nation was slowly recovering from a recession and the Kennedy administration went beyond a public works approach to deal more directly with joblessness, by addressing perceived problems of unemployment among members of the labor force. The Act was designed to serve workers who had lost their jobs because of automation. Its rationale was that by enhancing workers' skills and mobility among occupations, some unemployment might be avoided and economic growth promoted without generating inflationary pressure on wages. The MDTA authorized testing, counseling, living allowances, and training for unemployed heads of households having at least three years employment experience and for whom a "reasonable expectation" of employment after training could be established. Programs of on-the-job training were to be administered by the Department of Labor, and classroom (institutional) training by the Department of Health, Education, and Welfare (HEW). The MDTA also included a very small special program for youth, featuring training and extremely low living allowances. MDTA expenditures of $[illegible] million were authorized for a [illegible] period.

The first six months of MDTA activity was characterized by a failure to find large numbers of technologically displaced workers. At the same time, however, the civil rights movement was evolving from a campaign for legal and political rights in the South into a nationwide crusade for equality. Administratively at first, and then through legislation, the MDTA became the vehicle for a policy response to that movement. Lacking displaced worker clients, MDTA attention was redirected toward youth and the disadvantaged.

MDTA amendments in 1963 enlarged the existing program for youth and added provisions for counseling, testing, and job placement, as well as increased living allowances. For other MDTA programs, the labor market experience requirement was reduced from three to two years and adult basic education was defined as a skill training activity. The emerging MDTA emphasis on social compensation for youth and the disadvantaged was paralleled by the Vocational Education Act of 1963, which extended the reach of that program to employed individuals needing skill upgrading and to those experiencing job advancement difficulties because of academic or socioeconomic handicaps.

Manpower research and demonstration projects contributed to these early legislative changes by separately studying the employment problems of the disadvantaged and by examining the operations of programs dealing with those problems. The most important of these efforts was a research project conducted in Virginia ([illegible]); also influential were internal analyses by the Department of Labor concerning the rejection of volunteers for military service ([illegible]). Demonstration activities at that time focused particularly on increasing the scope and effectiveness of programs for youth (see [illegible]) and on concerns in the area of vocational education (see [illegible]).

These 1964 laws [illegible] government manpower policy as a tool of social equity. The Civil Rights Act focused attention on discrimination in the labor market and created an apparatus for enforcing equal employment opportunity. The Economic Opportunity Act (EOA) mandated several manpower training and services activities—the Job Corps, the Neighborhood Youth Corps, the Work Experience Program for unemployed adults receiving public assistance, and [illegible] elements in the war on poverty. The community action agency concept in the EOA was modeled in part from the manpower R&D experience, where indigenous organizations had been operating demonstration projects.* These programs broadened and complicated the administration of manpower policy by spreading responsibilities more widely across government, but also reinforced the policy emphasis on the unemployed and underemployed poor.

By the end of 1964, training programs under MDTA were operating at slightly more than $[illegible] million annually. Training and related efforts under these

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*Early Department of Labor support for demonstration efforts contributed to the development of such community-based organizations as the Opportunities Industrialization Center (OIC) and SER (Service, Employment, Redevelopment).

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

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[illegible]

[illegible]

[illegible]

[illegible]

The most severe manpower crises, however, could develop because of shortages or artificially inflated prices of certain raw materials. Direct attempts by government to allay the effects of resulting employment and economic growth problems will be particularly difficult, since they place manpower objectives in possible conflict with natural resource, energy, and international policy goals. While the development of manpower policy has always taken place within a complex economic and social milieu, there is no precedent for dealing with the kind of interdependent world economy that may influence the future U.S. labor market.

Chapter 6

MANPOWER R&D PROGRAMS

This chapter explores the character of the Department of Labor's manpower R&D program. Changes and trends with respect to modes of inquiry employed, performers engaged, and subject emphases in the overall R&D effort are highlighted and related to lines of manpower policy development and to changes in R&D program administration and management. Unlike the general assessment of OMRD's contributions in Chapter 3, this presentation is mainly descriptive and highly detailed, although several analytic conclusions are summarized at the end.

This is not an all-inclusive discussion. Some activities are emphasized because of their relatively greater importance to the overall program; accurate information on a few activities proved difficult to obtain; and intramural studies--primarily short-term policy studies by R&D staff--are not included. Nor is this a conclusive examination; it is merely one way among many to describe a large R&D program.

Sampling and Analysis

The Committee collected data on program expenditures, methods, performers, and content for seven fiscal years--1963, 1966, and 1969-1973. The Committee also reviewed reports from a number of significant OMRD-supported studies and commissioned more detailed assessments by its staff and by several researchers (see Appendix). The sample years emphasize more recent experience, but still convey some sense of earlier efforts when research and E&D were administered separately. Fiscal years 1963, 1966, and 1969 coincide, respectively, with the origins of manpower R&D activity within the Department of Labor, with a period of great expansion and proliferation of manpower training programs generally, and with a time of transition between the Johnson and Nixon Administrations and their differing concepts of national manpower policy. The 954 separate projects initiated during the seven years included in the sample represent about one-half of the nearly 2000 projects supported by OMRD and its predecessor offices between 1962 and 1975. Expenditures of $143 million for these projects represent nearly 60 percent of the total manpower R&D program budget since 1962.*

This account first describes the types of programs carried out under the R&D rubric and briefly examines how the mix of programs has changed since 1962. Then, for each broad program type, three characteristics are examined:

- R&D methods employed;
- performers and performing organizations; and
- program content.

TYPES OF R&D PROGRAMS

OMRD and its predecessor offices operated more than 17 different R&D programs. Some were instituted by legislation, some at the Department's explicit initiative, and some evolved from OMRD's interest and investment in sets of related projects. Table 1 shows the distribution of these programs and their costs for the seven sample years.** In considering this large and diverse structure, the Committee found it useful to distinguish between three different kinds of programs: General Programs, Research Training Programs, and Special Programs.

General Programs

General Programs include single project efforts with specified objectives and limited (two- to three-year) time frames for performance. These projects focused chiefly on manpower policy and program issues of interest to the Department of Labor. Some projects were one-time investigations, while others were parts of strategic attempts to deal with an area of manpower study. Overall, the nature and content of General Programs varied substantially from year to year.

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*Approximately 24 projects initiated during the sample years are not included in this analysis: four projects for which no final report was ever submitted by the performer; two projects (costing a total of $209,000) that were supported through both research and E&D program funds (and therefore could not be classified under one or the other category); and about 18 mobility demonstration projects that were apparently completed but for which project reports and accurate financial records could not be obtained. According to Manpower Administration memoranda, and an outside contractor's evaluative study (211), the overall mobility demonstration effort involved projects in 28 states and total expenditure of nearly $5 million.

**With the exception of several activities that were re-funded annually for four or more consecutive years (Institutional Grants, the Parnes Study, and the Experimental Manpower Laboratory projects), OMRD's total outlay for the full term of a project was credited to the fiscal year during which that project was initiated. This procedure was dictated by the manner in which records for R&D projects have been kept in the Manpower Administration. Accurate data on annual per-project expenditures are not readily accessible for the entire 1962-73 period.

TABLE I OMRD Expenditures by Program
(figures in parentheses are number of projects)

	1963	[illegible]	1969	1970	1971	1972	[illegible]	[illegible]
Longitudinal Study of Labor Force Behavior (Ohio State University)	0	$2,065,333 (2)	$1,270,[illegible] (2)	[illegible] (2)	[illegible]	[illegible] (4)	[illegible]	[illegible]
Social Security Act Research* (WIN Program)	0	0	2,626,[illegible] (12)	1,362,864 (10)	[illegible] (4)	1,608,782 (8)	2,392,477 (9)	[illegible]
MDTA Research Contracts*	$615,336 (17)	1,523,234 (26)	[illegible] (14)	[illegible] (14)	[illegible] (9)	439,367 (8)	[illegible] (10)	[illegible]
Institutional Grants	0	516,[illegible] (7)	[illegible] (7)	[illegible] (7)	[illegible] (12)	900,000 (12)	[illegible]	[illegible]
Job Bank Research*	0	0	0	[illegible]	[illegible] (2)	[illegible] (4)	0	[illegible]
Doctoral Dissertation Grants	0	390,000 (22)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] (20)	[illegible]
Conservation of Human Resources Project (Columbia University)	N.A. (1)	812,541 (1)	0	0	479,602 (1)	0	[illegible] (1)	[illegible]
Economic Opportunity Act*	0	0	281,312 (3)	[illegible] (3)	[illegible] (5)	[illegible] (3)	0	[illegible]
Post-Doctoral Grants	0	327,514 (31)	[illegible] (11)	[illegible] (12)	[illegible] (11)	[illegible] (10)	[illegible] (4)	[illegible]
National Manpower Policy Task Force	0	[illegible] (1)	0	0	[illegible] (1)	0	0	[illegible] (2)
Inflation-Unemployment Study (Urban Institute)	0	0	[illegible] (1)	0	0	[illegible] (1)	0	[illegible] (2)
Automation and Technological Change Research*	N.A. (15)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] (15)
MDTA E&D Contracts and Grants*	4,954,000 (23)	19,776,[illegible] (195)	[illegible] (24)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Experimental Manpower Laboratories	0	392,756 (1)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Economic Opportunity Act E&D*	0	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Mobility Demonstration Program*	0	3,228,756 (9)	N.A.	(2)	0	0	0	3,228,756
Offender Demonstration Programs*	0	0	0	0	[illegible]	[illegible]	0	[illegible]
Combination	0	2,596,[illegible] (4)	[illegible] (1)	0	[illegible] (1)	0	0	[illegible]
TOTAL								[illegible]

*Established by legislation

There were numerous General Programs: MDTA R&D Contracts and Grants, MDTA Research Contracts, Social Security Act Research (WIN Program), Economic Opportunity Act R&D, Economic Opportunity Act Research, Mobility Demonstration Program, Job Bank (Job Information and Matching) Research, Offender Demonstration Program, and Research on Automation and Technological Change. Some General Programs included projects addressed to very specific policy or operational concerns, such as Job Banks, while others involved projects covering a wide spectrum of subjects, such as all Manpower Administration activities under MDTA. General Program support was given to research studies, demonstration and development activities, pilot projects, and to experimental efforts. Available funds were used flexibly: research studies were sometimes supported with R&D Program funds, and demonstration, development, pilot, or experimentation efforts were sometimes supported with General Research Program funds.

Research Training Programs

There have been three Research Training Programs: doctoral dissertation grants, post-doctoral grants, and institutional grants. The doctoral and post-doctoral efforts, which began in 1965, have been administered jointly as the Small Grants Program. Research training activities focused primarily on developing, strengthening, and expanding the capabilities of manpower researchers and, more recently, on the relationship of those researchers to manpower program administration. Nonetheless, some of the work carried out through the Institutional and Small Grants Programs (for example, studies of occupational licensure and of the dual labor market theory) contributed substantially to scientific understanding of manpower problems.

Dissertation grants provided one- or two-year support of up to $11,000 to attract graduate students to manpower study. Since 1965, dissertation awards were made to 234 students. Of these, 143 had completed their degrees by mid-1972 and almost all of them had joined college and university faculties, primarily in economics.* Some had also served in various capacities with federal and state government agencies after obtaining their degrees.

Post-doctoral support of up to $30,000 per award was provided to over 100 established manpower researchers. Post-doctoral grant activity included high-risk exploratory efforts, feasibility studies that eventually led to large-scale General Program projects, and a number of special tasks such as synthesizing R&D findings in a subject area.

Through its Institutional Grants Program, ORD provided long-term (four- or five-year) funding for essentially self-directed teaching and research efforts under which 32 colleges and universities have received support. Each awards cycle took a slightly different form. Between 1966 and 1970, projects at seven institutions having only marginal capability (initially) in manpower study were funded for $75,000-$100,000 per year. The second round of grants, budgeted for $75,000 annually from 1970 through 1974, financed projects of research and researcher training at 12 universities already demonstrating advanced capability and commitment in manpower study. In both rounds, the goal, in OMRD's words, was to increase "the number of schools engaged in continuing research on manpower problems and the number of research specialists concentrating on manpower problems."

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*More recent data regarding doctoral dissertation completions and recipient employment are not available.

Third-round recipients, selected in 1974, included colleges and universities with varying degrees of established expertise in manpower. Ten were funded at $100,000 yearly, and three schools with substantial minority group representation in the student body were each funded at $100,000 yearly. Project purposes for this cycle were broadened in light of the decentralization aim of CETA: (a) to teach undergraduate and graduate students about manpower programs, with an eye toward attracting them into the local administration of CETA activities; (b) to improve the skills of current CETA administrators at the local, state, and regional levels; (c) to strengthen the linkages between program administrators and the university-based manpower research community; and (d) to conduct studies relevant to local, state, and regional manpower concerns.

Special Programs

Special Programs have entailed continuous, long-term, and relatively large-scale funding commitments. The projects included in this category primarily represent institutional support for directed study of manpower program design and assessment: the Longitudinal Study of Labor Force Behavior, the Experimental Manpower Laboratories Program, the Columbia University Conservation of Human Resources Project, the National Manpower Policy Task Force, and the Urban Institute Inflation-Unemployment Study.

The National Longitudinal Study of Labor Force Behavior (the Parnes Study) has been conducted jointly by the Census Bureau and researchers at Ohio State University. Economic, social, and psychological data have been collected continuously since 1966 from the same four groups of workers: female labor force entrants aged 14-24, male labor force entrants aged 14-24, females aged 30-44, and males aged 45-59.* These data have facilitated study of individuals' employment experiences in greater depth and detail than ever before possible. The Parnes Study, which represents OMRD's largest single investment to date, is scheduled for completion in fiscal 1978.

The Experimental Manpower Laboratories Program provided support for six projects between 1966 and 1973. Each lab's project was intended as a continuing capability for conducting scientifically sound, program-oriented research in an operational setting. In addition, each project had a particular topical focus relevant for manpower programming in the mid-1960s and early 1970s:

- Pre- and post-placement job support, e.g., job coaching, to improve job retention among disadvantaged workers (Colorado State University);
- Basic education and incentive programs for prisoners to improve post-release employment behavior and development of individualized instructional materials and procedures for their use (Rehabilitation Research Foundation, Draper Correctional Center, Elmore, Alabama);
- Strengthening local agency procedures and coordination in rendering manpower training and services (University of Michigan-Wayne State University);

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*Age ranges refer to the workers' age at the beginning of the study.

- Manpower training and services to increase the employability of disadvantaged youth (Mobilization for Youth, New York City).
- [illegible]
- Integrated economic planning and programming for manpower and vocational education (North Carolina Manpower Development Corporation).
- High-level skill training for the disadvantaged in an industrial environment, conducted by company personnel and with company equipment (Oak Ridge Associated Universities, Union Carbide, and the Atomic Energy Commission, Oak Ridge, Tennessee).

The progress and achievements of these projects were carefully reviewed by an independent panel in 1972-73 and recommendations were made for strengthening their structure and management [illegible]. In 1973-74, funding for several labs was phased out in anticipation of a new round of similar projects, but fiscal 1975 budget reductions made it impossible to support a round of new labs. Funding for the remaining labs projects was terminated at the end of fiscal 1975.*

The Columbia University Conservation of Human Resources Project was initiated in 1950 to conduct interdisciplinary research related to major manpower policy issues. Within the broad areas of human resource development and manpower utilization, project staff had substantial freedom to select problems for investigation. Most recently, studies focused on the dynamics of inner labor market operation, a high priority subject because of CETA.

The National Manpower Policy Task Force (NMPTF), supported jointly by ORD and the Ford Foundation since 1968, has provided a different policy research capability. While maintaining a small staff and commissioning studies by outside researchers, its primary function has been to provide a forum at which leading manpower researchers could address policy issues being debated in the executive and legislative branches of government. The Task Force has also served informally as an advisory body to ORD on matters of its strategy and the design of especially complex or costly projects.

The Inflation/Unemployment Study, conducted by Urban Institute researchers between 1968 and 1974, attempted to study and to empirically model labor market phenomena—the movement of individuals between unemployment and employment, and the effects of general economic conditions and of major labor market institutions, such as the Employment Service, on these flows. The objective was to clarify the relationships between macroeconomic (fiscal and monetary) policies and manpower activities in order to design manpower policies that would effectively contribute to the overall performance of the economy. This study was funded jointly by ORD, the National Science Foundation, and the Ford Foundation. ORD support was withdrawn in mid-1973 because of budgetary constraints; this effectively ended the effort since the other sponsors were unable to increase their contributions.

Changing Program Mix

Expenditure and Project data for General Programs, Research Training Programs, and Special Programs are shown in Figure 1. Expenditures for Research Training

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*Many of the organizations that operated laboratory projects have nevertheless remained active in manpower, providing advice and undertaking further studies related to manpower programming.

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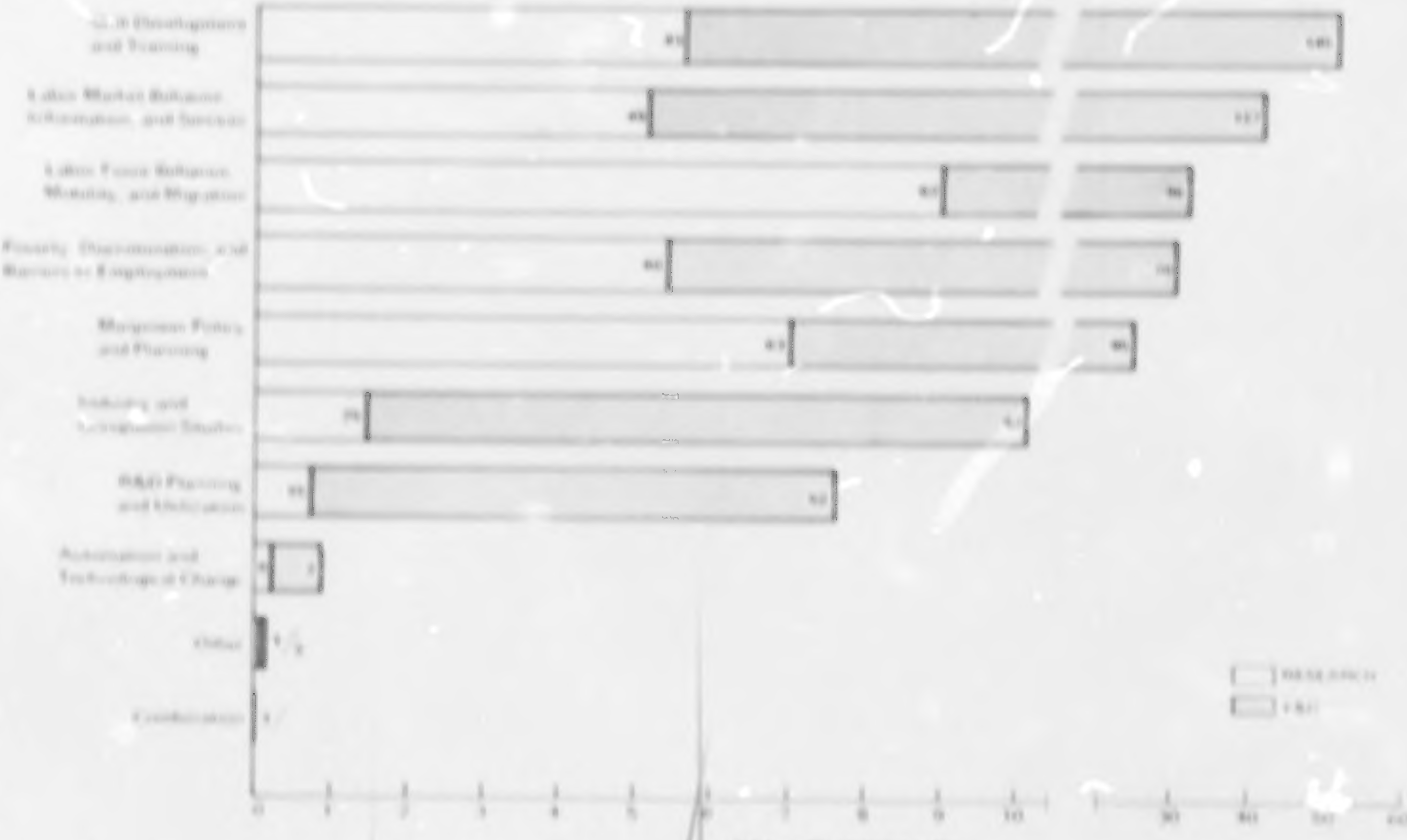


FIGURE 3. General Programs by Topic: I
(Figures inside bars are number of projects; up to three categories per project)

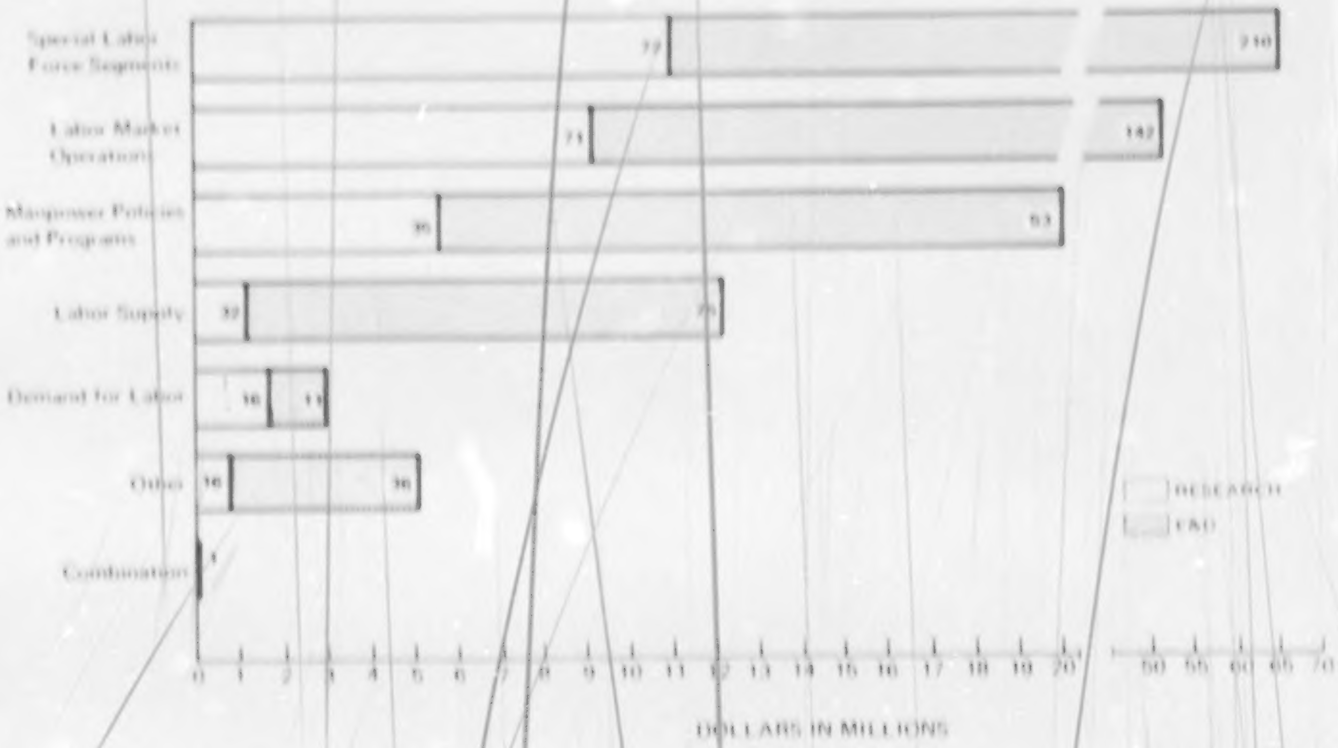


FIGURE 4 General Programs by Topic II
(figures inside bars are number of projects - up to three categories per project)

expenditures for projects examining the demand for labor are apparent for both research and E&D.

Relationship to DOL Manpower Programs

A large share of General Program expenditures involved topics related directly to manpower training and service delivery, as well as methods (demonstration projects) designed to reflect problems normally found in operating environments. Figure 5 shows R&D expenditures in terms of specific DOL training and service delivery programs.

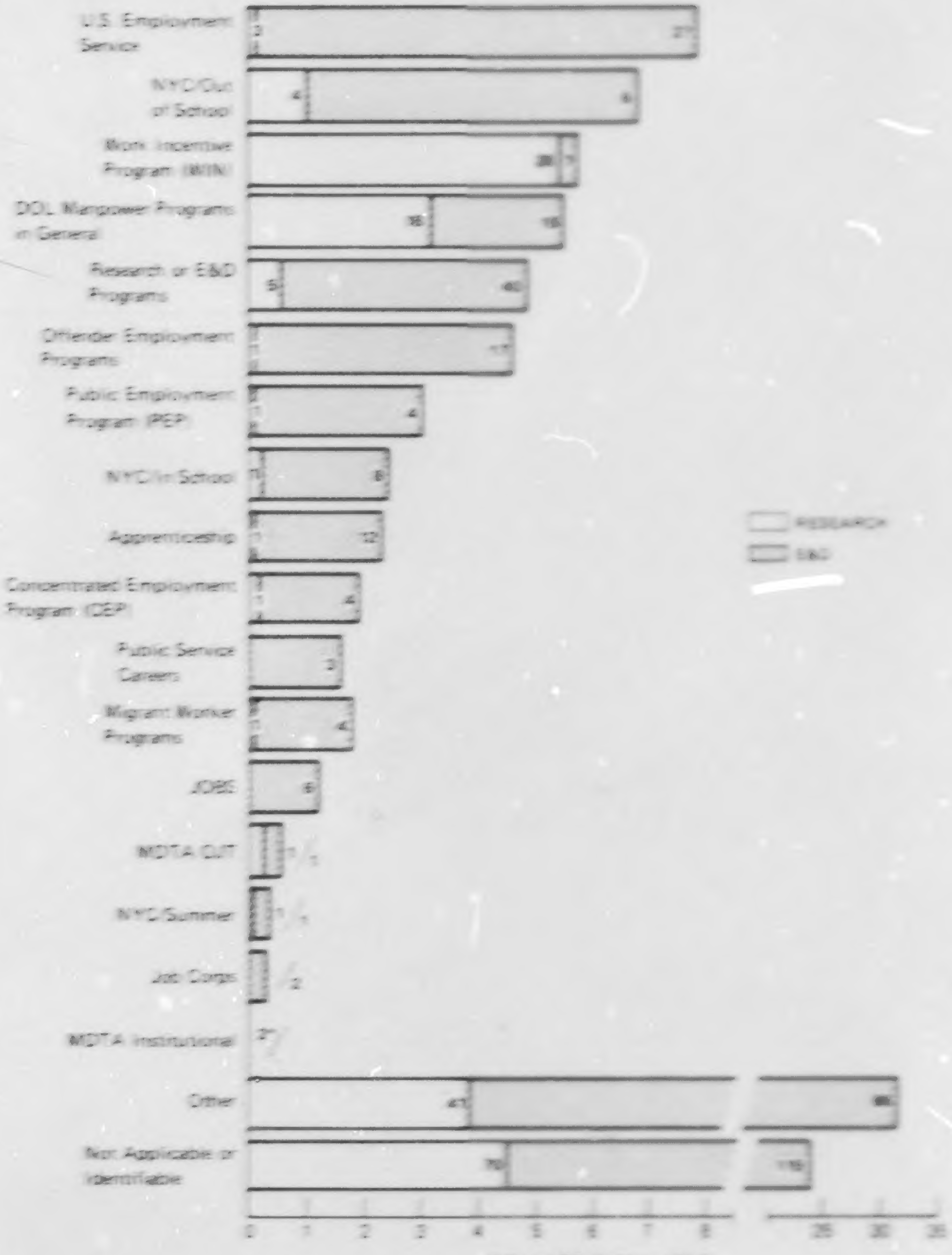
General Research Programs were concentrated on relatively few DOL activities: Neighborhood Youth Corps (NYC) programs, the Work Incentive Program (WIN), and general operating problems for all DOL manpower training efforts. General E&D Programs gave relatively more attention to NYC and the U.S. Employment Service. The patterns were not necessarily conscious strategy on OMRD's part. Work related to the WIN program was mandated by Congress to be carried out with research funds; efforts to strengthen the Employment Service have normally been considered by the Department in operational (E&D) rather than research terms.

About 30 percent of OMRD General Program expenditures were program-oriented although not focused on specific DOL program functions. One explanation of this striking proportion is that OMRD has followed its broad mandate to study all aspects of manpower and manpower programming, not just those under the immediate control of DOL. Much work under the "Other" category, for example, dealt with educational institutions as integral service delivery agents in manpower development. Another large segment of "Other" expenditures reflects the emphasis on model-building and program invention that characterized manpower R&D during the formative years of manpower policy in the 1960s. Since most manpower R&D was intended as high-risk and exploratory, many such efforts were specifically designed not to overlap established training programs; only a small fragment was ever translated directly into permanent Departmental operations.

Figure 6 illustrates somewhat differently the rapidly shifting priorities for General Program efforts. Only the four largest categories from the previous figure are covered, but the pattern of year-to-year change in these is common to the others. Significantly, there is no apparent connection between the relative levels of General Program R&D expenditures related to different DOL programs and the budgets for or number of participants involved in those training or service activities.

Labor Force Focus

Many General Programs dealt with labor supply, but this emphasis was not evenly distributed across the entire labor force. Figure 7 presents data regarding the focus of OMRD General Programs on age-defined labor force groups. Again, there were major shifts in the levels of year-to-year expenditure within categories, but specific subgroups consistently received far more attention than general groups in the labor force. Over time, there was a decreasing General Program focus on youth, while striking inattention to older workers persisted. (Disaggregating these data in terms of Research and E&D Programs shows that



*Cost of projects not available.

FIGURE 5 Relationship of General Program Expenditures to DOL Manpower Programs (figures inside bars are number of projects)

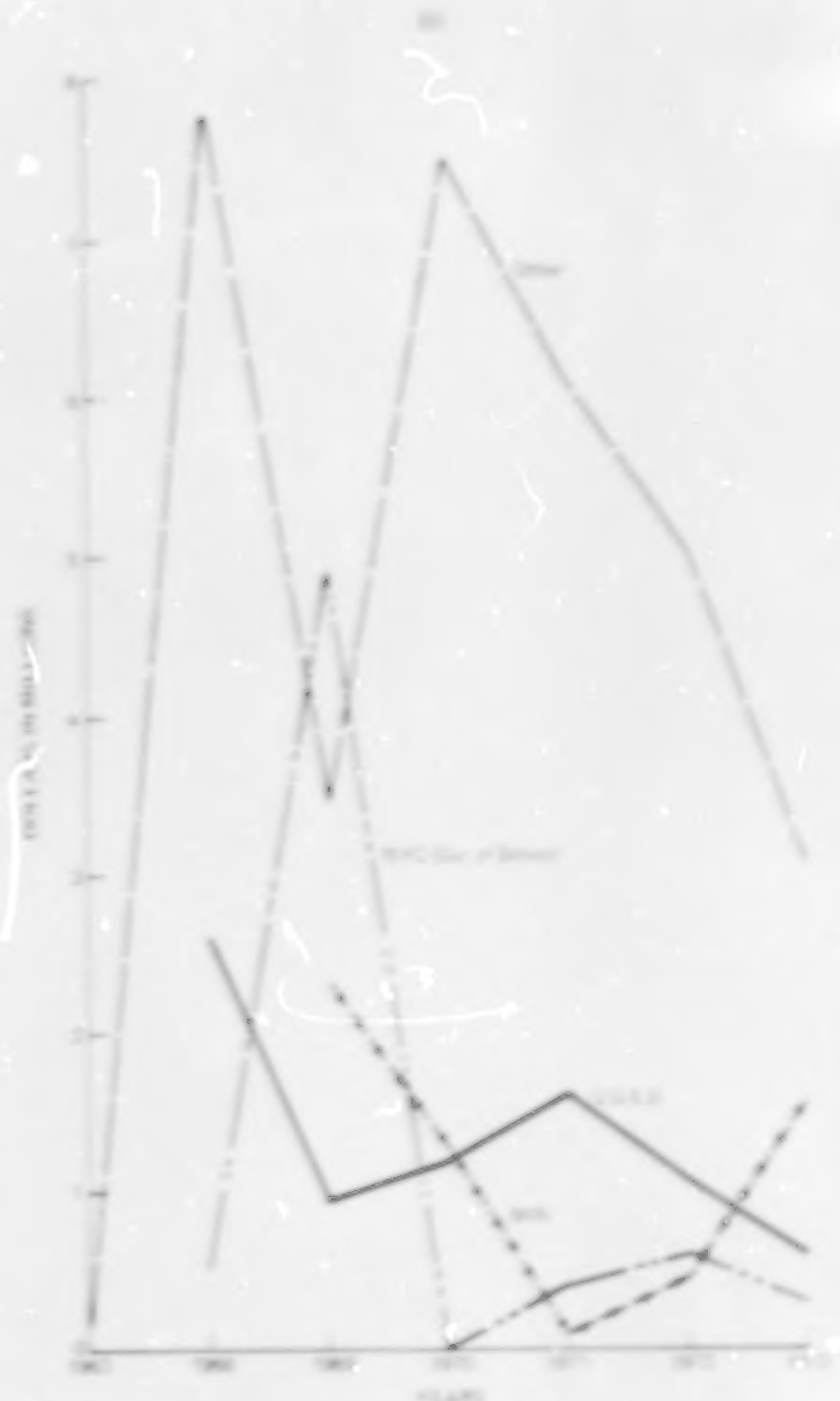
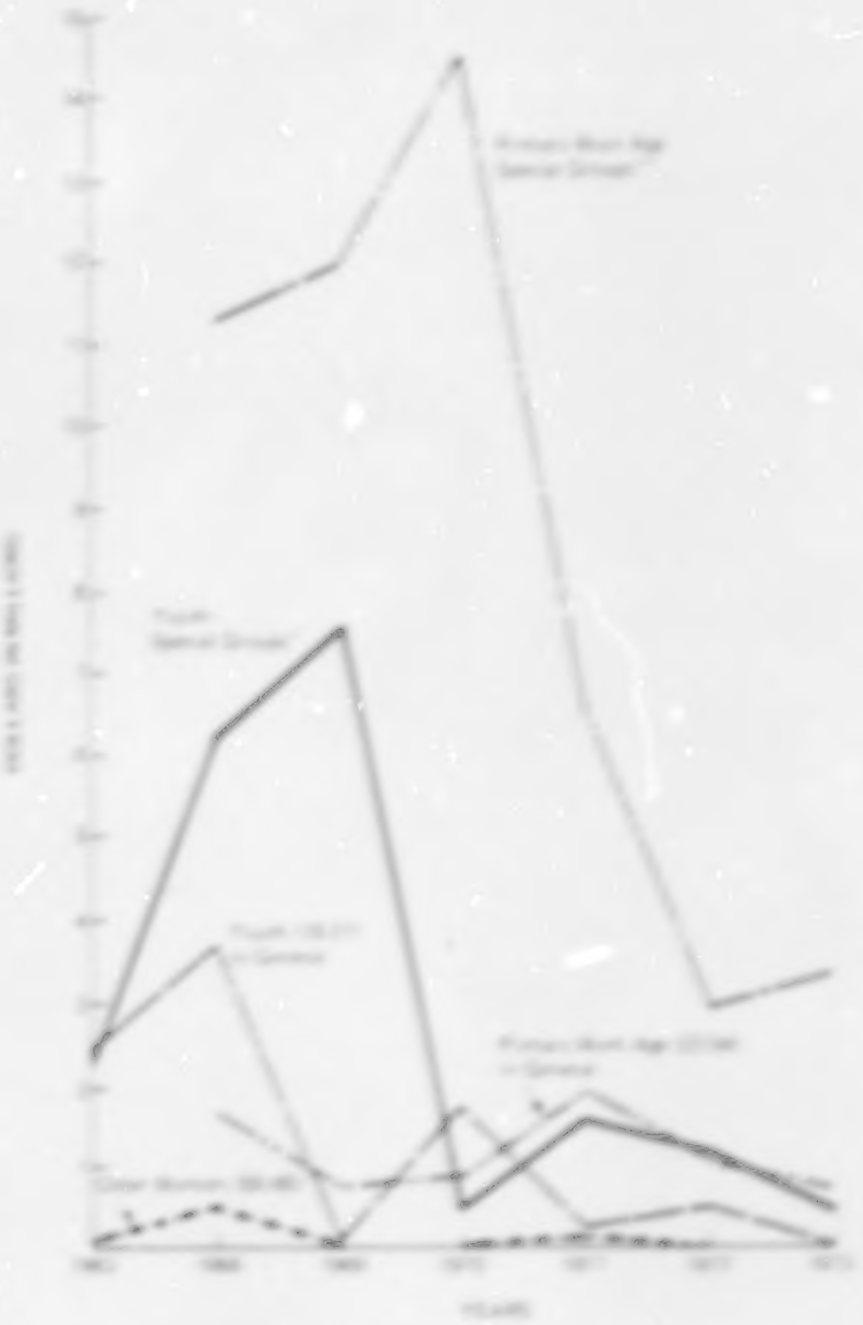


FIGURE 4. Relationship of General Program Expenditures to Selected DOL Manpower Programs



*e.g., female youth, minority youth, youth in school
**e.g., primary work age female, primary work age minority, primary work age unemployed workers

FIGURE 7. General Programs by Labor Force Group and Age

research expenditures have been more evenly distributed among age categories in the labor force than have E&D expenditures.)

Table 6 employs another set of categories for examining the labor force distribution of OR&D General Program efforts. It incorporates ethnic, occupational, income, and other characteristics often associated with problematic labor force experience to provide details regarding the large "Special Issue" category shown in Figure 7.

This R&D focus again reinforced the compartmentalized approach of manpower policy to labor force problems. Overall, data on General Program expenditures for special groups show concentration on narrow bands of the labor force—youth, ethnic minorities, and criminal offenders—with especially severe employment handicaps. Ethnic minorities and welfare recipients received by far the greatest attention, while veterans received the least. Beginning in fiscal 1971, there was a small but growing concern for the labor force problems of women and white-collar workers, and emphasis on marginal groups in the labor force—addicts and alcoholics, criminal offenders and ex-offenders—also increased.

Disaggregating these data shows that E&D expenditures and projects were more widely distributed among various subgroups than research expenditures and projects. In both research and E&D, however, there was greater concern for unemployed workers as a broad class than for particular categories of the unemployed.

Labor Market Study

Another major theme in OR&D General Programs has been the study of labor markets. Table 7 presents data regarding the distribution of expenditures and projects among various types of inquiry into labor market operations. Job placement (the hiring process) and occupational labor markets received the greatest attention. Labor market studies focused primarily on workers, jobs, and market processes in the construction and health industries, sectors of the economy that received much manpower policy and program attention. Levels of expenditure in all categories varied greatly from year to year.

Separating Research from E&D Program activities shows a stronger E&D emphasis on job placement and occupational labor markets and relatively more research attention to labor market measurement, information and information systems, and a small but recently growing concern for individuals' job search behavior. The E&D focus can be explained by manpower policy and program interest in placing trainees in jobs. Research emphases can be attributed to the Job Bank Program as well as to ongoing interest among manpower researchers in describing and distinguishing different types of local labor markets. For both General Research and E&D Programs there was relatively little expenditure for studies of labor market theory.

RESEARCH TRAINING PROGRAM

R&D Methods

By definition, Research Training Programs involved the application of research methods. Data indicate substantial amounts of theoretical, case study, and

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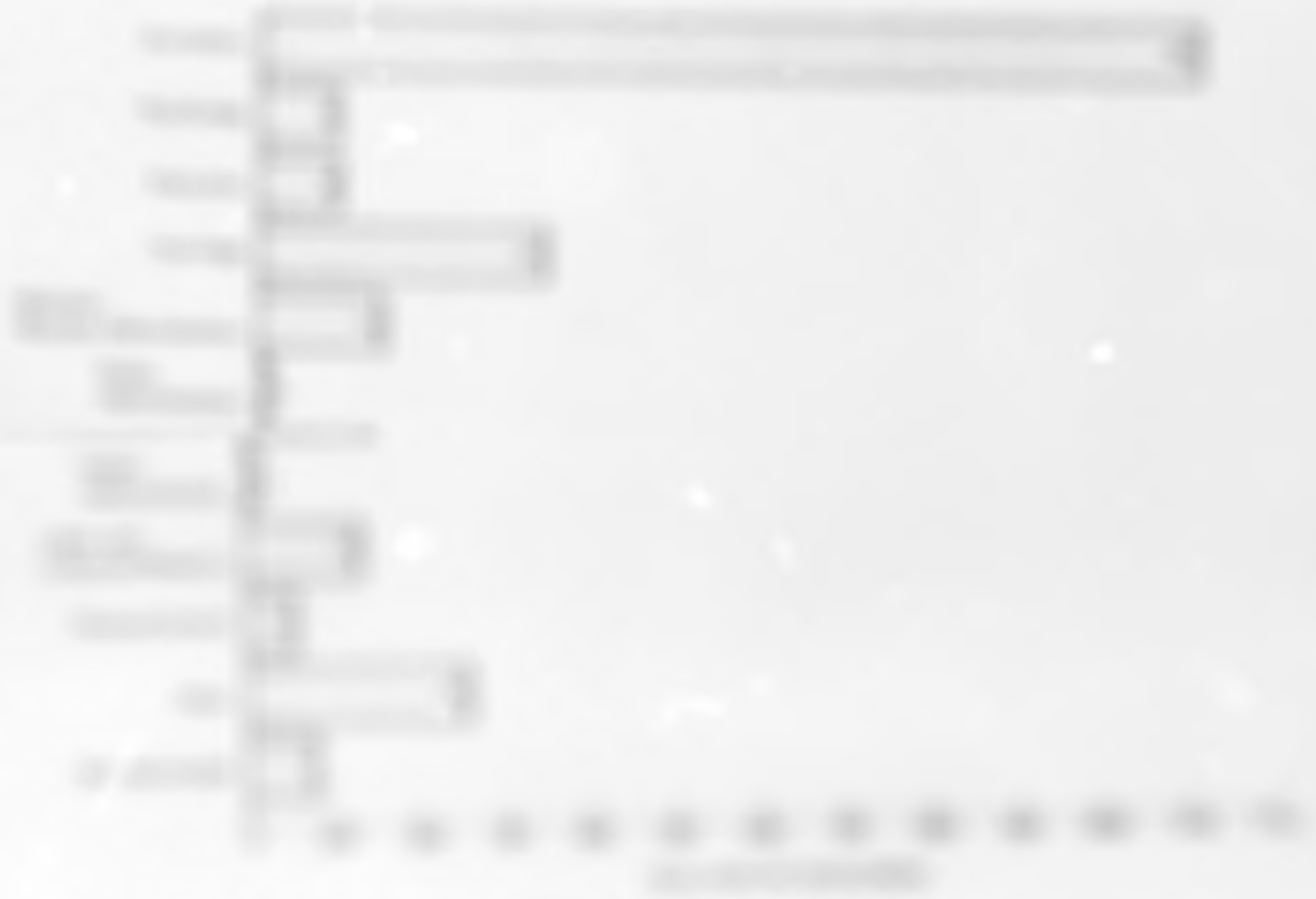

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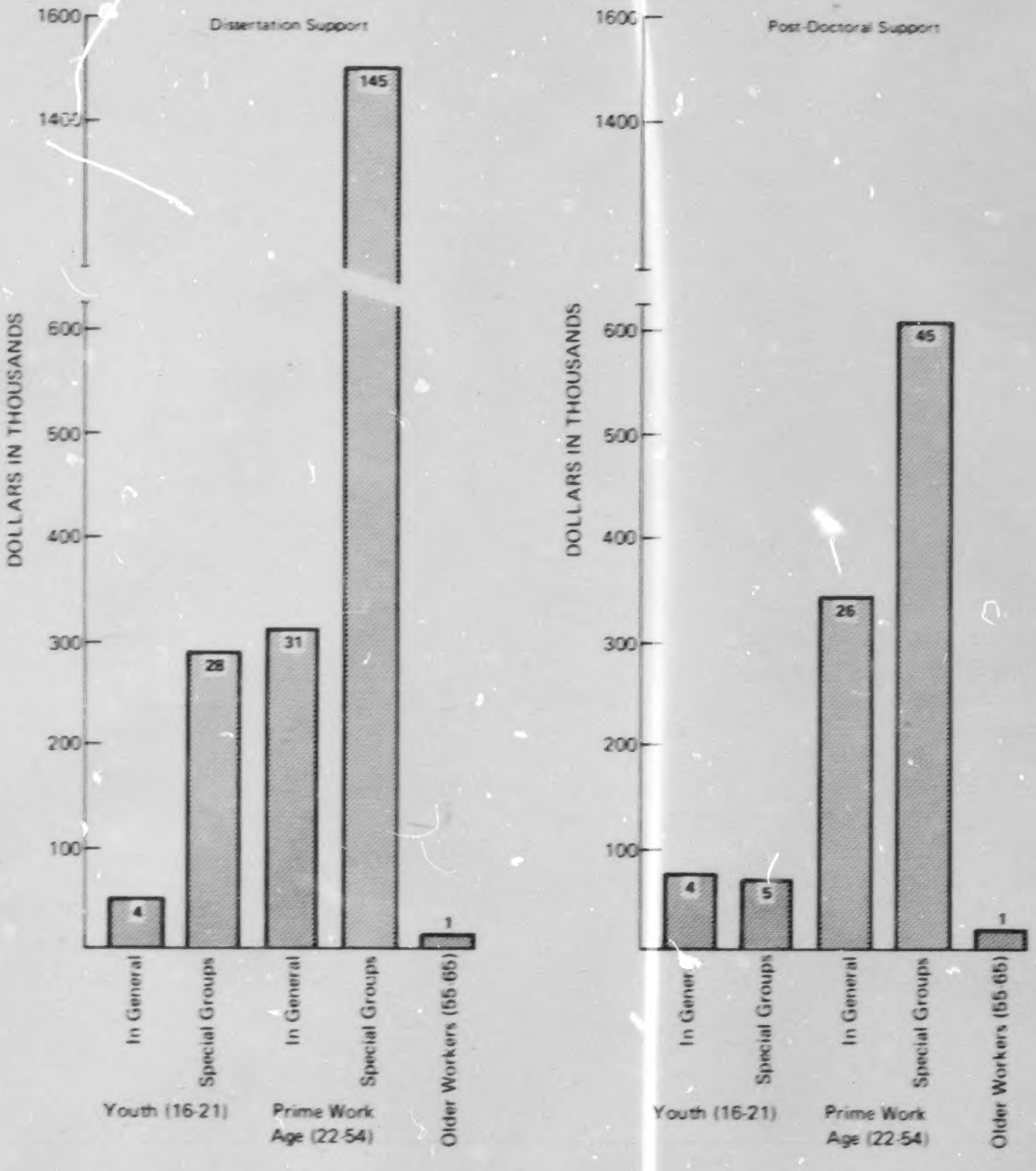


FIGURE 12 Small Grants by Labor Force Group and Age
(figures inside bars are number of projects—up to two categories per project)

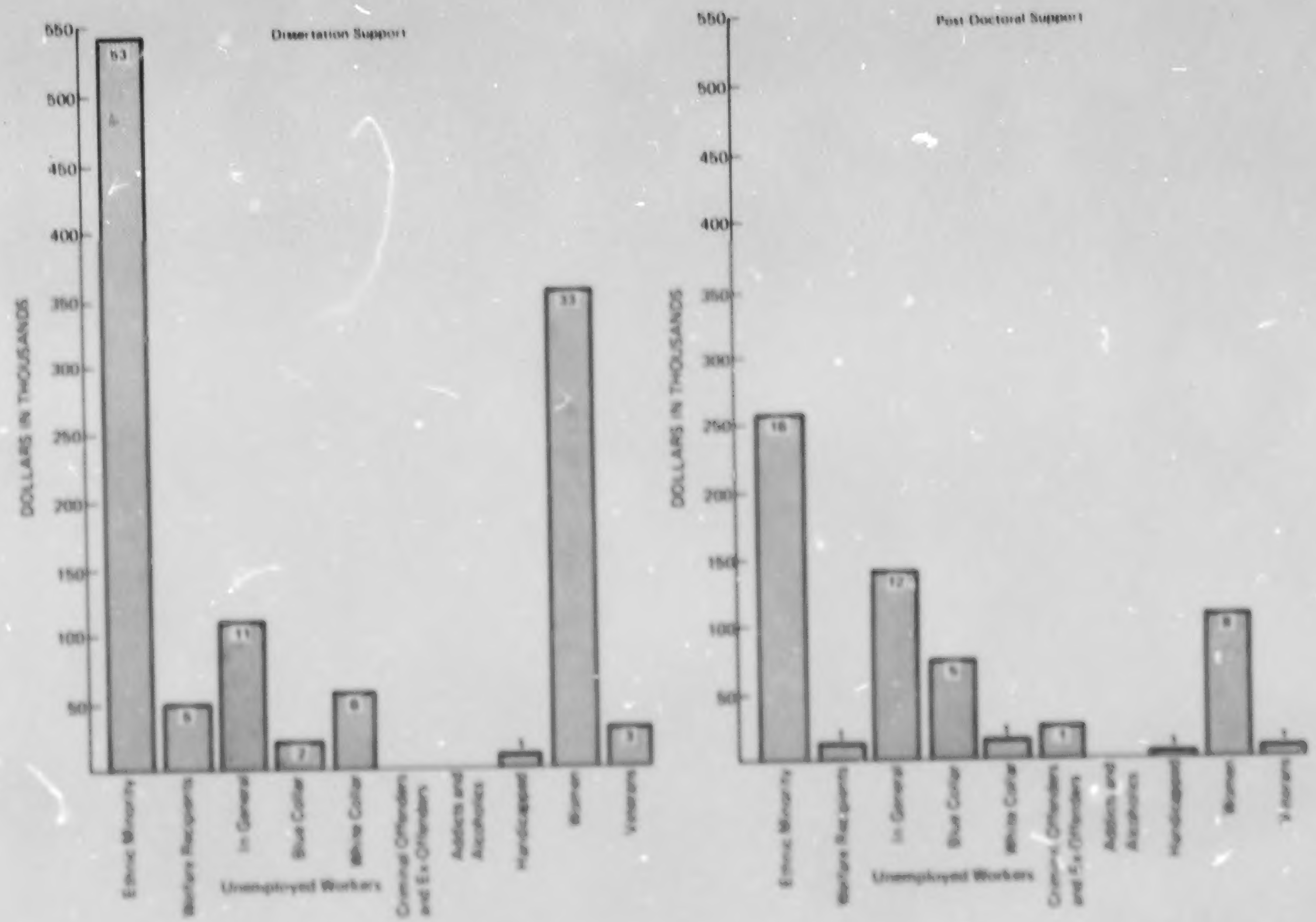


FIGURE 13 Small Grants by Selected Labor Force Characteristics
(figures inside bars are number of projects—up to two categories per project)

remaining projects was located in a single university department. OMRD also reported that for three of the 19 projects, all of the faculty engaged permanently in research and training activities were economists. In the other 16 projects, economists were involved to varying degrees, along with sociologists, psychologists, and education and social work specialists.

Program Content

Although the Institutional and Small Grants Programs' chief purpose has been to improve the number and quality of manpower researchers and research capabilities, a brief description of the program content is important for several reasons. First, since these programs are essentially self-directed, the lines of inquiry pursued provide one view of prevailing interests within the manpower research community. Second, the nature of the studies undertaken mirrors the specialized researcher competencies that OMRD helped to develop over the years.

The work of institutional grant recipients was insufficiently documented to allow data collection along the lines employed in this chapter. However, the Committee's review of available institutional grantee studies revealed as wide a coverage of subjects as in the General Program. The following discussion is limited to doctoral dissertation and post-doctoral awards made through the Small Grants Program.

Topics

Figures 10 and 11, which examine small grants for the seven-year sample in terms of the two topical schemes presented earlier, show a wider distribution of interests than was the case for General Programs. The attention given to skill development and training, labor supply, and labor market operations was still pronounced, but in comparison to General Programs, more emphasis was placed on issues concerning the demand for labor.

Labor Force Focus

Figures 12 and 13 highlight the distribution of small grants by labor force segment. Dissertation activities paralleled closely the General Program emphasis on youth and other special groups. However, relatively more attention was given to the manpower problems of women and white-collar workers. Post-doctoral activities concentrated more heavily on broadly defined target groups in terms of age categories than was the case for either dissertation grants or General Programs. Post-doctoral studies also showed a greater concern for women than did General Programs.

Labor Market Study

Figure 14 shows the distribution of small grants expenditures and projects related to labor market study. Labor market theory, geographic and occupational mobility, and internal and segmented labor markets received somewhat

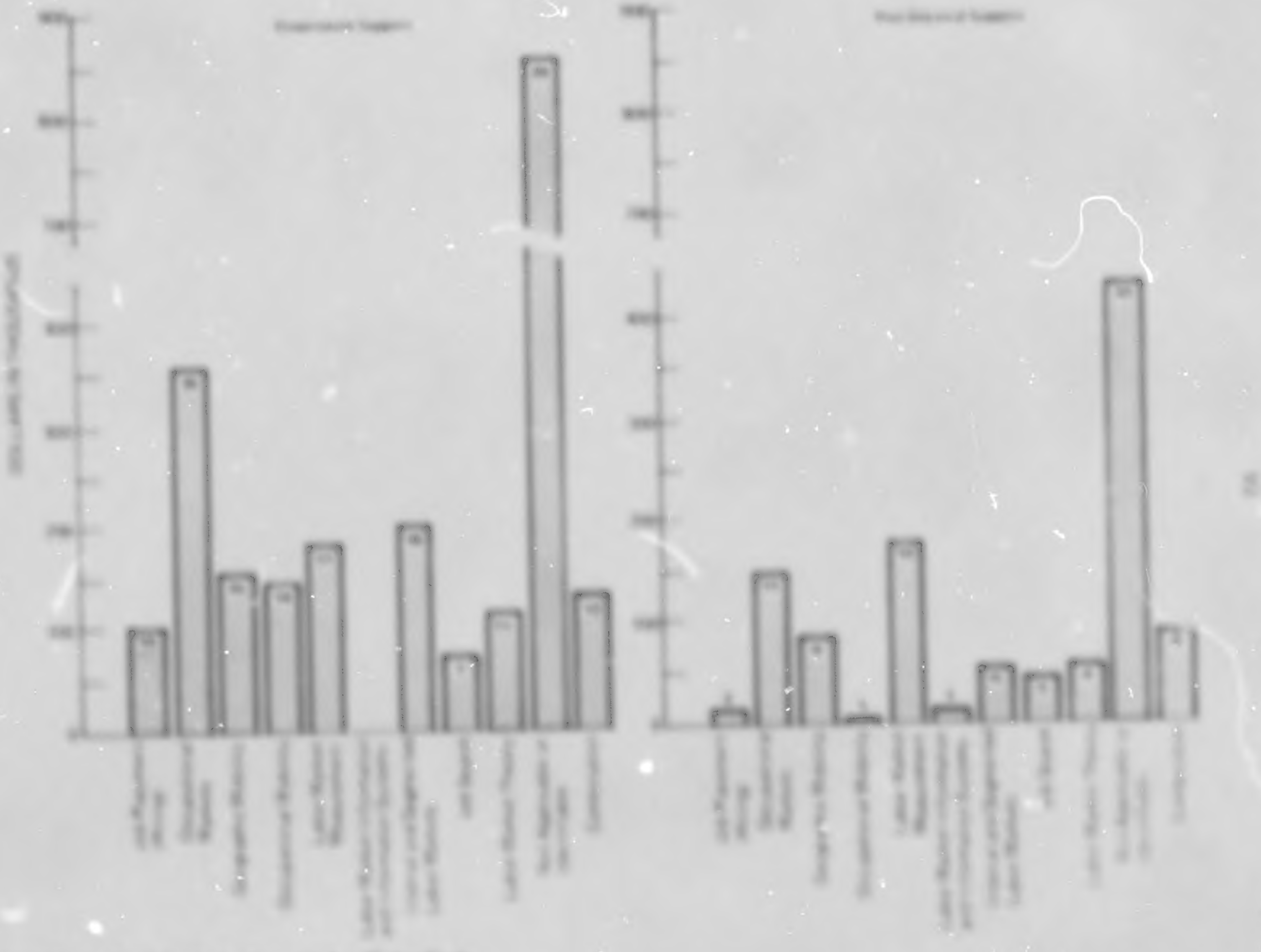


FIGURE 14 Small Grants by Area of Labor Market Study
(figures inside bars are number of projects)

greater emphasis in the dissertation program than in the General Program. Post-doctoral studies had a stronger focus than did General Programs on occupational labor markets, labor market measurement, and labor market theory. Both dissertation and post-doctoral projects covered labor market subjects more broadly than their General Program counterparts.

SPECIAL PROGRAMS

R&D Methods

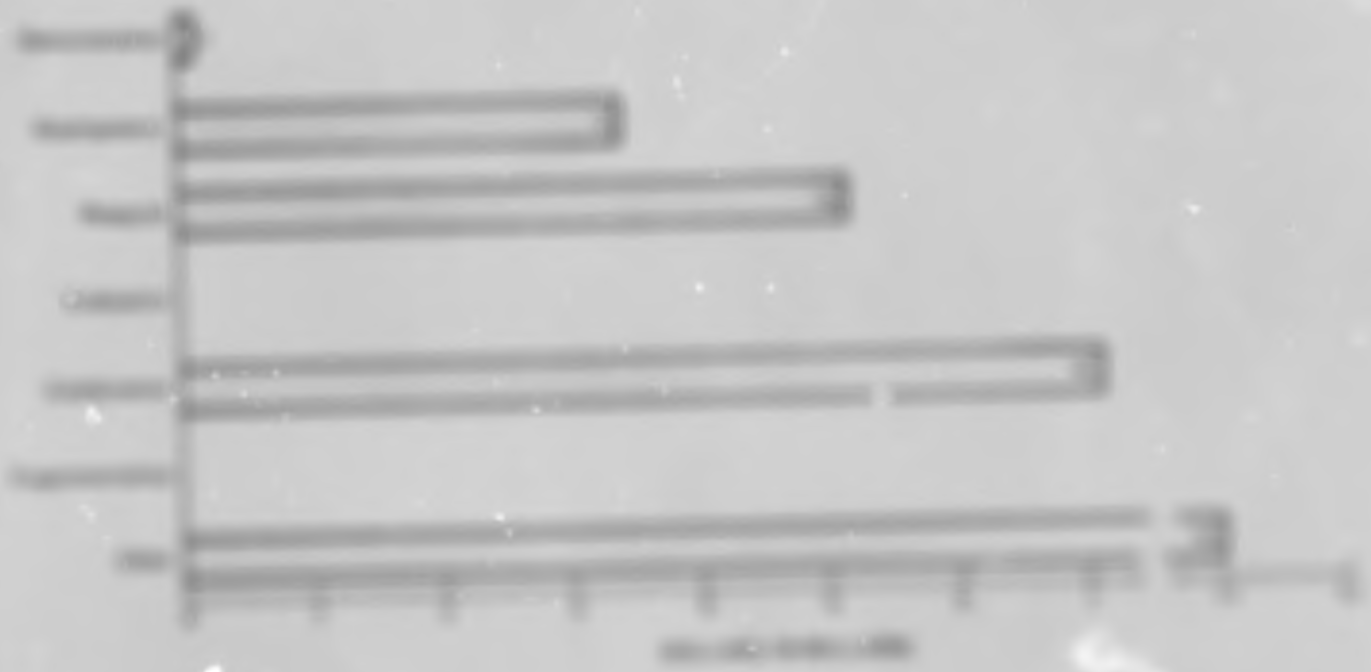
Figure 15 shows Special Program expenditures by R&D method. Overall, Special Programs were characterized by substantial expenditures for research, conducted through the Parnes and Inflation-Unemployment Studies, and on development, conducted through several of the Experimental Manpower Laboratory projects. As noted, the Parnes Study has been a large-scale longitudinal data collection and analysis activity, while the Inflation-Unemployment Study has been an exercise in labor market modeling and simulation having major implications for the development of new techniques and theories in manpower study.

The large "combination" category in Figure 15 reflects efforts undertaken by several of the Labs to integrate demonstration and evaluation approaches in operational environments. The almost-zero "Demonstration" category stands in marked contrast to that category of General Programs (see Table 2). When Special Program activities dealt directly with questions of design for manpower training and services, it was usually done in a more tightly controlled manner than that of demonstration projects. Finally, the substantial "other" category in Figure 15 mirrors both data collection costs for the Parnes Study and some of the work of the National Manpower Policy Task Force.

Performers and Performing Organizations

Data regarding principal investigators for Special Program projects are presented in Figure 16. Again, economists received the most support, with lower levels of support for educators, psychologists, and sociologists corresponding to the General Program experience. The "Other" category reflects substantial participation by social work researchers. The "Not Identified" category includes data collection activities under the Parnes Study and also reflects the involvement of non-credentialed local program operators in several Labs.

Special Program activities were located in a variety of institutional settings: about 48 percent (by expenditure) in university research centers, including Parnes Study research efforts, several Lab projects, and the [illegible] of Human Resources projects; 27 percent in the Federal government's Census Bureau (Parnes Study data collection); 17 percent, including several other Lab projects, in local social service delivery agencies; and the remaining eight percent, including the NMPTF and the Inflation-Unemployment Study, in nonprofit, nonuniversity policy research organizations.



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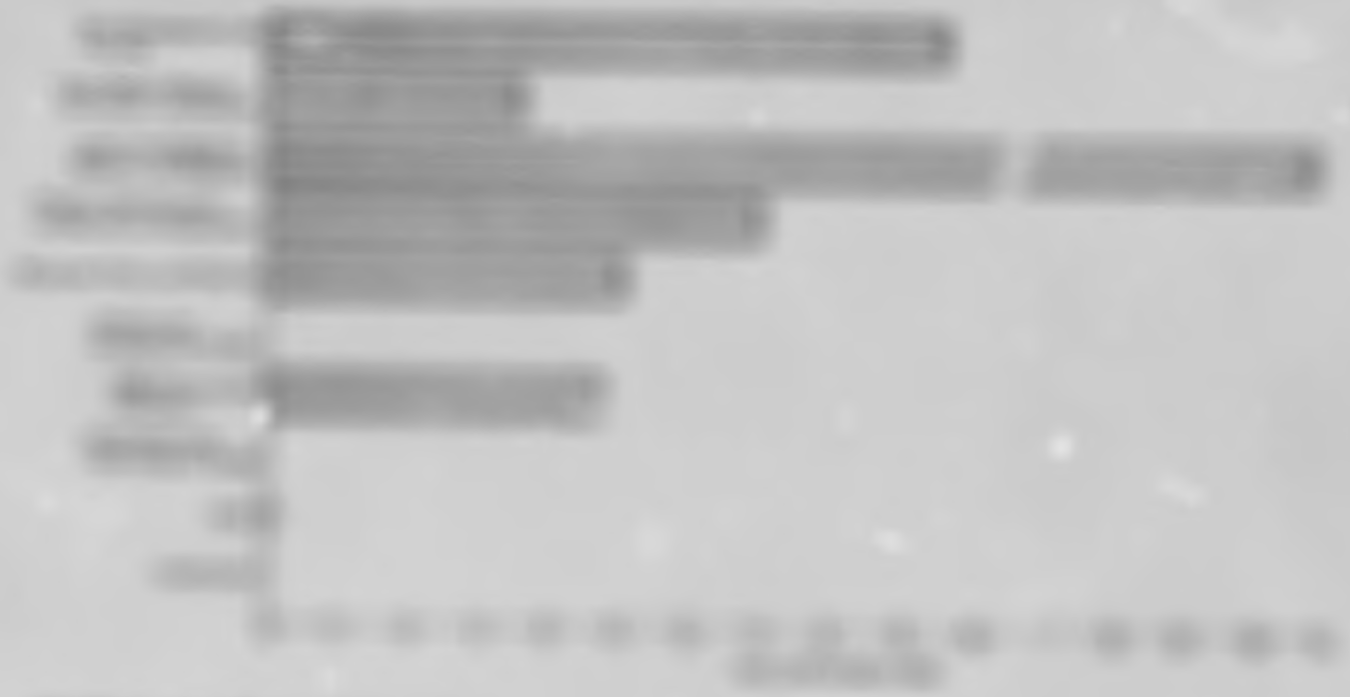

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procedures for measuring occupational interests and aptitudes. Similarly, psychologists, sociologists, and others have contributed to analysis, observation, and theory regarding labor market operations by highlighting new lines of productive inquiry, such as job search, and by identifying some of the many institutional factors that help explain market deficiencies, such as in the areas of occupational licensing and labor exchange. Those considerations are one reason the Committee has urged both wider orientation of OMRD's Small Grants Program and consideration of a national center to provide a strong focal point for social science involvement in manpower policy study.

Chapter 7

THE OFFICE OF MANPOWER RESEARCH AND DEVELOPMENT

This chapter discusses the evolution of the Office of Manpower Research and Development (OMRD) and considers its capacity to administer and manage the manpower R&D program. While broad directions and emphases in R&D program content have been determined primarily by the course of manpower policy development, specific R&D plans and results were also influenced by:

- the budgets for OMRD and its predecessor offices,
- the legislative mandate for these offices,
- the character of interaction with other units in the Department, and
- the Offices' organization and staff capabilities.

OMRD has been responsible for conducting the manpower R&D program since 1970. From 1962 through 1969, responsibility for R&D was divided: the Office of Manpower Research (OMR) administered research projects and the Office of Special Manpower Programs (OSMP) administered demonstration, development, experimental, and pilot (E&D) projects. This review of the evolution of OMR, OSMP, and OMRD reveals (a) an expanding and increasingly complex mission, (b) growing uncertainty over the R&D role in DOL, and (c) declining levels of staff capability within the R&D offices themselves. This review is a story of the day-to-day and the long-term difficulties associated with conducting social R&D in a mission-oriented government department.

BUDGET*

In understanding the evolution of OMRD and its activities, it is helpful to consider manpower R&D program expenditures in a broad context.

Within the Department of Labor

The Department of Labor's annual appropriations request has never included a line item for OMRD or its predecessor offices. Rather, the manpower R&D effort, like most R&D within the Labor Department, has been funded as a "residual" activity: funds for manpower R&D, along with funds for program evaluation, policy planning, staff training, and technical assistance, have been incorporated into a "Program Support" category for the Department's Manpower Administration (MA). Responsibility for these activities is scattered among several MA units.

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*This discussion of OMRD's program budget does not include separate funds made available for OMRD staff salaries and administrative (S&E) expenditures. In fiscal 1975, the S&E allocation was approximately $1.1 million--a little less than $25,000 for every professional on the OMRD staff.

Between 1962 and mid-1975, the Department of Labor invested approximately $250 million on nearly 2000 projects through its manpower R&D program,* or about one percent of the $25-$30 billion spent for all federal manpower policies and programs during these years.

Through 1974, the manpower R&D budget was relatively constant in current dollar terms, which means that it declined enormously, not growing as manpower program expenditures grew and not keeping pace with inflation. After a brief start-up period in 1962 and 1963, the budget rose quickly to an annual level of just over $25 million in the mid-1960s (about 2.2 percent of DOL's training program expenditures under MDTA during that period). In the late 1960s and early 1970s, the manpower R&D budget remained about $[illegible]0 million annually, but beginning in 1972, $1 million of each year's manpower R&D budget was transferred to DOL's International Labor Affairs Bureau to support its separate research program.

Beginning in 1975, an additional $5 million was cut from the OMRD budget to support a new research effort, conducted by DOL's Employment Standards Administration (ESA), on the effects of minimum wage legislation.** These two mortgaging actions effectively reduced OMRD's program budget to $14.7 million for fiscal 1975. OMRD's budget will be even smaller in fiscal 1976, approximately $13.2 million.*** Nevertheless, OMRD operates the largest R&D program within DOL, accounting for almost 50 percent of the Department's total R&D funding commitment; however, its budget amounts to less than 0.5 percent of current manpower training program expenditures by DOL.

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*Operating agencies and bureaus in the MA have also conducted or supported R&D-type activities on an irregular basis independent of the manpower R&D program. Those activities have generally been closely related to program management concerns. For example, the Unemployment Insurance Service has engaged in actuarial study and the U.S. Employment Service has conducted program demonstrations in the area of job matching and has been concerned with the development and validation of aptitude tests. In fiscal 1974, expenditures for such non-OMRD R&D activities were approximately $7.5 million, with funds obtained chiefly from unapportioned program accounts and not from the "Program Support" appropriation.

**This was done by the Department despite the fact that the Congress expressed willingness to appropriate separate funds for the ESA research program.

***This reduction resulted from another set of mortgaging actions: funds to support a day care center for DOL employees and funds to support research activities undertaken by the National Commission on Manpower Policy.

Across the Federal Government*

A reasonable estimate of current annual federal support for R&D in manpower is $100 million.** The major sponsor of manpower R&D is the Department of Defense (DOD), with 1975 expenditures of about $70 million.*** The Department of Health, Education, and Welfare supports manpower-related R&D programs smaller than those in DOD and DOL in connection with its responsibilities for vocational education and social services and its concern for the supply of qualified manpower in education and health occupations. Other departments and agencies that conduct manpower R&D on a relatively sustained basis include the National Science Foundation, the Office of Economic Opportunity, the Veterans Administration, and the Departments of Agriculture, Transportation, Commerce, and Housing and Urban Development. In comparison to other agencies, where most work has tended toward very limited exploration of manpower aspects of operational issues, OMRD work has covered a broad range of labor force segments and matters of unemployment and productivity, both theoretically and in an applied fashion.

LEGISLATIVE AUTHORITY

The legal foundations for the manpower R&D program have grown along with expanding national manpower policy concerns. The inclusion of R&D activities under the 1962 Manpower Development and Training Act (MDTA) was a unique feature in social legislation at that time. For the Department of Labor, creation of the MDTA R&D program expanded the relatively narrow labor force and labor market analyses historically pursued by the Bureau of Labor Statistics and the Bureau of Employment Security. The manpower R&D program mission grew with subsequent legislation. In 1973, the Comprehensive Employment and Training Act (CETA) integrated virtually all prior authorizations.

Title I of the MDTA called for research arranged through contracts and grants to advance the legislative objectives initially expressed in that Act. The mandate for research was therefore first limited (according to the OMR interpretation):

- to develop and apply the information and methods needed to deal with unemployment problems and other mal-utilizations of manpower resources;

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*There is also some funding for manpower R&D from non-federal sources. Private foundation support appears to be $5-$7 million annually, with most of the money coming from the Ford Foundation. (This estimate is based on a review by Committee staff of R&D project abstracts submitted to the Smithsonian Scientific Information Exchange during 1972-73.) Business, industry, and unions also conduct manpower R&D studies, but there are no reliable estimates of their cost. Nor are there data available on state and local government R&D manpower expenditures or on college and university commitments to research in manpower.

**Estimate based on review of R&D project abstracts collected by the Smithsonian Scientific Information Exchange for fiscal 1972 and fiscal 1973.

***This is approximately one percent of what that agency spends on its education and manpower training programs.

- to accomplish technological progress while avoiding or minimizing individual hardship and widespread unemployment; and
- to raise the skill levels of the nation's work force, to increase productivity, and to provide the manpower resources needed for advancing technology.

As the primary emphasis of MDTA shifted away from a predominant concern for technologically displaced workers, the research authorization expanded to include explicit focus on all disadvantaged members of the labor force.

The MDTA originally referred only to research; there was no specific mention of demonstration, development, experimental, or pilot projects. Rather, the Congressional report accompanying the legislation suggested that the Secretary of Labor use a portion of the discretionary (Title II) funds at his disposal to conduct such projects. The Department adopted the contract and grant procedures authorized for research for these Title II activities, which enabled the Department to commission projects quite independent of established federal, state, and local agencies. Both top policy makers and OMRD staff considered this necessary to encourage and test innovative approaches to manpower programming.

Between 1964 and 1968, there were six legislative additions to DOL's manpower R&D mandate. The Economic Opportunity Act of 1964 authorized R&D projects relating to the Neighborhood Youth Corps and later, the Job Corps and other activities. The 1965 MDTA amendments gave E&D activities an explicit legislative base in Title I, as

> ...a program...for...improving techniques and demonstrating the effectiveness of specialized methods in meeting the manpower, employment, and training problems of worker groups such as the long-term unemployed, disadvantaged youth, displaced older workers, the handicapped, members of minority groups, and other similar groups.

The 1965 amendments also authorized two special demonstrations, for mobility assistance for the unemployed and for bonding ex-offenders in the labor force.* The 1966 MDTA amendments removed a local matching contribution requirement for E&D projects, making such efforts a wholly federal undertaking. The 1967 amendments to the Social Security Act authorized manpower research activities focused on the Work Incentive Program. The 1968 MDTA amendments specified research projects to aid the U.S. Employment Service in implementing a nationwide system of job matching and information. There were no other legislative actions directly affecting the manpower R&D program until late 1973 when CETA combined most of the statutory provisions for manpower R&D that had accrued over the previous years.

The activities of the Office of Manpower Research and Development are now governed by provisions of two laws:

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*The special authorizations for mobility assistance and bonding demonstrations expired in 1970. The Department did not seek renewal, expecting that manpower legislation then pending in Congress would incorporate those efforts as a permanent part of MDTA. It did, but the bill sent to the President was vetoed in a dispute over public employment. Regular R&D funds have been used for subsequent work to further develop mobility and bonding programs.

- Title IV of the Social Security Act (SSA) as amended in 1967; and
- Title III of the Comprehensive Employment and Training Act (CETA) of 1973.

Title IV of SSA calls for operationally oriented studies aimed at improving the effectiveness of the Work Incentive Program. Title III of CETA directs the Secretary of Labor to:

> ...establish a comprehensive program of manpower research utilizing the methods, techniques, and knowledge of the behavioral and social sciences...as will aid in the solution of the Nation's manpower problems. This program will include but not be limited to, studies [contributing to the] formulation of manpower policy; development or improvement of manpower programs; increased knowledge about labor market processes; reduction of unemployment and its relationships to price stability; promotion of more effective manpower development, training, and utilization; improved national, regional, and local means of measuring future labor demands and supply, enhancement of job opportunities; skill training to qualify employees for positions of greater skill, responsibility, and remuneration; meeting of manpower shortages; easing of the transition from school to work, from one job to another, and from work to retirement; opportunities and services for older persons who desire to enter or re-enter the labor force; and for improvements of opportunities for employment and advancement through the reduction of discrimination and disadvantage arising from poverty, ignorance, or prejudice.

and, to:

> ...establish a program of experimental, developmental, demonstration, and pilot projects...for the purpose of improving techniques and demonstrating the effectiveness of specialized methods in meeting...manpower, employment, and training problems....

This mandate does not limit OMRD's work to any particular discipline or direct the Office to focus exclusively on any particular program or problem.* Similar to prior authorizations, it places the main burden of determining priorities directly on the shoulders of R&D staff and DOL policy officials.

LOCATION AND INTERACTIONS

Both the development of an organizational location for the manpower R&D program and its changing interactions with other Departmental units followed the evolution of national manpower policy. A complex structure for managing that policy grew around OMB and OSMP. OMRD currently exists below multiple layers of a highly vertical and compartmentalized Department, with uncertain access to policy decisions and program operations. The usefulness of informal exchange regarding R&D has remained heavily dependent on changing attitudes and personalities within the Department. Systematic linkages have not developed to help relate R&D plans and findings to policies and programs.

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*The Act does, however, prohibit "...employment programs experimenting with subsidized wages in the private sector, or with [minimum] rates less than those established by the Fair Labor Standards Act of 1938...." (Section 311(c)).

Within the Manpower Administration

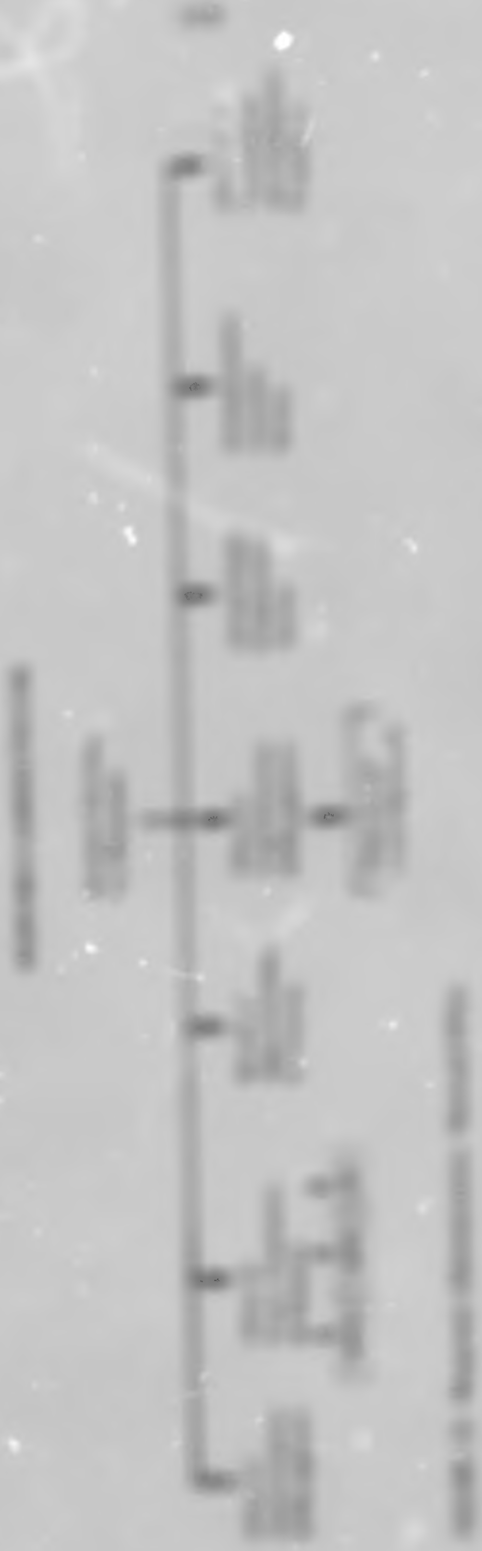
Rather than assign new functions to existing bureaus in DOL to implement the MDTA on an independent basis, a new organization, the Office of Manpower, Automation, and Training (OMAT) was created in 1962. OMAT became a coordinating and channeling mechanism for distributing MDTA funds and for carrying out research and R&D projects. In 1963, the Manpower Administration was organized to include OMAT, the Bureau of Employment Security (including the U.S. Employment Service), the Bureau of Apprenticeship Training, and, beginning in 1964, the national office of the Neighborhood Youth Corps Program.

The OMAT staff responsible for research and R&D activities was relatively autonomous during those early years. By 1965, this staff was working in OMR and OSMP; these offices, an Office of Policy Planning, and an Office of Manpower Program Evaluation were organized as the Office of Manpower Policy, Evaluation and Research (OMPER), to constitute a special "thinking" capability for the Manpower Administration. Later renamed OPER (Office of Policy, Evaluation, and Research), its basic functions have been to provide information for: strengthening manpower legislation, anticipating future manpower problems, and improving the design and implementation of DOL manpower policies, programs, and legislation; assessing the performance of DOL manpower programs and making their operations more effective; and determining an appropriate DOL role in advancing the state of scientific knowledge in manpower. OPER's primary audience is the Assistant Secretary for Manpower, the one top-level DOL official directly responsible to the Secretary for recommendations about manpower policies.

Historically, the constituent parts of OPER have been linked only through the OPER Director. Each OPER unit plans and implements its program with relative independence. Cooperative action has usually been limited to matters of mutual administrative interest and to formulating joint strategies for the uses of R&D, program evaluation, or policy analysis results.

As national manpower service and training activities increased and diversified, the Manpower Administration came to include additional bureaus, agencies, and offices. Currently, OPER is one of seven major line and staff units in the MA national office, as shown in Figure 17. OPER is linked formally to other Manpower Administration offices, and through them to the regional, State, and local administration of manpower and related programs, by the head of OPER.

During the early and mid-1960s, when the shape of the Manpower Administration was changing rapidly, formal communication channels varied and R&D managers exercised initiative in promoting interaction. As the entire organization settled slowly into its present mold, links between OMPER and each MA unit developed at a different pace, level of intensity, and degree of formality. As personnel in policy and administrative positions have changed, so have relationships; there were periods of close cooperation as well as periods of intense disagreement over the manpower R&D mission and its execution.



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over how to correct the situation. There have been direct and indirect Congressional pressures on government agencies to adopt certain administrative procedures for R&D, particularly with respect to performer selection, that may not be appropriate in every case. Few DOL officials have had a sound appreciation of the difficult managerial requirements for R&D. OMRD has not been in a position, either in terms of having regular access to executive echelons or in terms of a sufficiently large and skilled staff, to enhance that appreciation.

PLANNING

Effective R&D planning includes: (a) specification of current policy objectives and possible future policy problems; (b) understanding of the state of knowledge and of the methods for clarifying those objectives and problems; and (c) assessment of the possible benefits, costs, and problems attached to the pursuit of alternative lines of inquiry.

OMRD planning addresses both the priorities of Department of Labor programs and the interests of manpower researchers--in fact, it makes an effort to integrate their divergent perspectives in its activities. Thus, there has been formal and informal planning for R&D in limited but potentially significant areas of scientific or policy concern (such as job satisfaction), in relation to a particular programmatic function (such as labor exchange under the Employment Service), and to guide further study or development revealed by completed projects (such as in the areas of apprenticeship training and job search). These plans have involved the identification of ideas for particular R&D projects that are subsequently ordered in importance and feasibility to provide a sense of overall strategy.

The annual budget cycle tends to be a focal point for OMRD planning efforts. Early in a fiscal year, the OMRD Director's Office prepares a general plan, following instructions issued by the Secretary for the entire Department, that usually defines major areas of concern (subjects that tend to change markedly from year to year). OMRD's general plan, presented as a set of issues to be covered during the upcoming year, is reviewed by the head of OPER, by other Manpower Administration officials, and then by the Department (through ASPER). After the general plan has been approved, OMRD, usually in consultation with other Departmental units, develops basic project specifications to be incorporated into a working plan for the R&D program. Significantly, the R&D working plan is scheduled for completion last among all DOL activities prior to overall budget submission to OMB; ostensibly, this is to encourage maximum responsiveness to emerging policy and program issues. In most years, 60-65 percent of the activities included in the working plan are continuations of existing projects.

The Director's Office is the focal point for generating, collecting, and developing ideas for new projects. Staff members prepare descriptions of all projects, whether continuing or new, that might be included in the working plan. National and regional office DOL officials are formally and informally solicited for suggestions. Informal liaison is maintained with leading manpower researchers and with research and professional organizations to identify opportunities for project initiatives. OMRD also receives 400-500 unsolicited proposals each year; in the past, about five percent of these have been incorporated into the R&D plan. When an issue is completely new to OMRD or new directions in an ongoing line of inquiry appear necessary, the Director's Office often consults groups such as the NMPTF or a specially convened panel of scholars and practitioners to help identify projects to support. OMRD is normally very sensitive to political developments in Congress and the executive branch, attempting to anticipate policy interests before they develop fully.

The annual funding cycle imposes tight time constraints on planning, especially for new projects. Although both scientific feasibility and the possibility of gaining insight about manpower are considered, final decisions regarding the OMRD working plan are heavily influenced by short-term perceptions of R&D requirements for the Manpower Administration. There have been several attempts to develop long-term plans for R&D--by groups of manpower researchers, through strategy papers for particular subjects prepared by OMRD staff, and, most recently, in the preparation of four-year R&D plans requested by ASPER--but they have seldom had lasting effect. This has been due to project-specific foci that proved inappropriate when manpower policies changed; the inherent difficulty of defining a manageable agenda for manpower study; lack of agreement among manpower researchers regarding knowledge needs; and lack of support, among top-level Department officials, for R&D requiring substantial time and money.

Over the years, OMRD and its predecessor offices have been expected to provide the bases for R&D planning and resource allocation decisions: information regarding policy objectives and problems, potential R&D contributions to those objectives and problems, and R&D project costs and risks. Several formal mechanisms have been used to assist R&D program managers and staff in generating such information and to encourage cooperative interchange on R&D planning within the Manpower Administration. Some of these mechanisms have become increasingly important to OMRD as its staff capability declined.

Upon passage of the MDTA in 1962, the Secretary established a National Manpower Advisory Committee, which in turn organized a Subcommittee on Research, Development, and Evaluation. The Subcommittee, whose members were appointed by the Secretary and represented business, unions and the social sciences, was a source of ideas and advice to the Secretary, the Assistant Secretary for Manpower, the head of OPER, and to the manpower R&D program with respect to R&D policies, programs, project design, and use of findings. On occasion, the Subcommittee became a forum where R&D staff discussed with Manpower Administration and Department executives knowledge requirements for policy development, scientific understanding of manpower issues, and alternative R&D expenditure strategies. Annual OMRD plans were reviewed formally by the Subcommittee before submission to the Department for final approval.

However, with only minimal staff resources of its own, meeting at three- and four-month intervals, and dependent upon agency personnel to frame problems for its consideration, the Subcommittee performed with varying degrees of effectiveness. A good sounding board on well-defined and limited issues, such as project design, it was less able to view overall R&D needs and ways of addressing them effectively. An attempt was made in late 1973 to expand and strengthen the Subcommittee, but the passage of CETA terminated its mandate. The Secretary denied a 1974 request to establish a similar advisory body.*

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*The National Manpower Advisory Commission established by CETA could conceivably play a role similar to that of the MDTA National Manpower Advisory Committee with respect to R&D activities. The Commission, however, is Presidentially appointed and its relationships with DOL, as well as with OMRD, have not yet been fully defined.

In 1963, the Manpower Administration created an internal body, the Coordinating Committee for Manpower Research (CCMR), to provide information regarding R&D activities and results and to facilitate communication among its executives and OMR/OSMP staffs concerning R&D requirements. The CCMR, however, had no staff of its own and was dependent upon information provided by OMR and OSMP. Manpower Administration officials participated irregularly. The CCMR did strengthen manpower R&D interchange within the agency, but it faded out of existence in mid-1968.

Additional sources of information for planning have come from within OMRD and its predecessor offices. One such source, quite obviously, has been staff members, to the extent of their ability to understand and interact directly with the worlds of social science research and manpower programming. However, overall staff competence declined in the 1970s and funds for travel (to such events as professional association meetings and to visit operating manpower programs) and opportunities for training in new methods of empirical analysis were drastically reduced.

Planning information has also come from the R&D work of other federal agencies. Preparation of the annual *Manpower Report of the President* has enabled the Office to track some of that work on a continuing basis.* Between 1967 and 1970, an Interagency Committee on Manpower Research (chaired by the Department of Labor) sponsored a government-wide effort to inventory manpower R&D activities. Since 1970, however, direct opportunity for OMRD to assess its efforts in a wider federal context has been limited to occasional participation in interagency task force operations focused on R&D for specific, and often transient, policy issues. Increasingly, the Office has come to rely on the manpower research community for information regarding government involvement in the field. In addition, the Office has commissioned state-of-the-art reviews on particular subjects. In both cases, the scope and quality of information obtained has depended on the perspectives of the individuals consulted. The Office has drawn primarily on a limited number of well-established manpower researchers.

A third approach by OMRD to securing planning information and exchange has involved informal access to policy and program officials. During the early and mid-1960s, there was substantial opportunity to establish relationships in Congress, in the upper echelons of the Department, and in the world of manpower programming. While many of those relationships have endured, a larger and highly formalized organizational structure within DOL has forced the Office to deal through intermediaries. Contact with regional, state, and local field operations in particular have become more and more filtered through the Office's R&D contractors and grantees or through other units of the Manpower Administration.

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* The annual *Manpower Report* has been a significant document for other reasons: its wide distribution affords OMRD opportunity to contribute directly to manpower policy discussions; chapters of the report often summarize or reference the results of OMRD-supported projects (as well as those of other federal R&D units).

IMPLEMENTATION: PERFORMER SELECTION AND PROJECT MONITORING

Almost all activities of OMRD and its predecessor offices have involved projects conducted by outside performers, particularly during recent years when fewer skilled staff were available to carry out intramural work. A predominantly extramural mode of operation was chosen by OMR and OSMP in the belief that this method would permit a wider variety of R&D activities within a limited budget than if most work were done intramurally. Such a strategy makes sense initially for a new field of study, even though it imposes unique requirements on staff and administration for effective implementation.

Performer Selection

Effective management of performer selection procedures (including provisions for proposal solicitation and project design) requires: (a) an ability to state problems in researchable terms; (b) an understanding of the opportunities and limitations of applying different scientific methods to different problems; and (c) an accurate sense of the differing capabilities of performers possibly qualified to undertake specific projects.

OMRD currently employs three different methods of performer selection. Each method involves a different approach for generating new ideas or lines of study and for designing projects, with certain methods requiring a greater level of R&D staff involvement than others.

Peer review is one method of selection. OMRD convenes panels of researchers and practitioners to consider Institutional and Small Grants Program proposals. The Small Grants Panel is now composed of five manpower researchers; it has met four times a year since its creation in 1965.* For the Institutional Grants Program, the peer review approach was used officially for the first time in 1974 when a group composed of five academics and two manpower practitioners considered proposals for one grant cycle.** During that cycle, institutional grant proposals were also formally reviewed by DOL Regional Office staff.

For both programs, panel members assess proposals according to an established set of criteria. The existence of the programs and the selection procedure for choosing grant recipients are widely known on college and university campuses. The use of a peer review mechanism for evaluating proposal content and proposer capability--when the actual size of the grants is not at issue--has wide precedent in federal R&D procurement and has been used effectively by OMRD. Its one drawback, especially for doctoral and post-doctoral awards, is the possibility that Panel members may give greater consideration and weight to proposals clearly in the mainstream of a field (with respect to methodological, disciplinary, and subject focus) than to unusual approaches.

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*Panel membership has changed continually over the past decade, with individuals serving renewable one-year terms.

**First- and second-round institutional grant proposals were reviewed informally by leading manpower researchers and practitioners to assist OMR in its selection of recipients.

A great majority of OMRD projects are currently implemented through another method--sole source procurement. During fiscal 1975, about 70 percent of the Office's new project performers, excluding those in the Small Grants Programs, were on a sole source basis. Federal regulations allow sole source procurement in situations where special capabilities are required; it affords an R&D office great flexibility in negotiating with the performer on substantive and cost issues before making a funding decision. A researcher, research organization, or other group is requested by OMRD to develop and submit a proposal for a planned activity. The extent to which OMRD has clearly defined the project will vary tremendously, as will the manner in which the resulting proposal is handled. OMRD usually has referred more expensive and technically complex proposals to external reviews; comments have been sought from other DOL personnel regarding a proposal's relevance to their concerns and from other government and university researchers for their evaluation of the technical feasibility and design of the proposed work. The process of external review, however, has often been very informal and varies according to the nature of the proposal involved. Beginning in 1974, research proposals developed through this procedure (but not those for demonstration, development, or experimentation activities) have been formally submitted for review by ASPER to ensure that the noncompetitive sole source approach has been properly used and that the anticipated project design is scientifically sound.

Unlike some R&D agencies, OMRD encourages the submission of unsolicited proposals. Because the Office does not publish an annual program plan, the topical coverage of proposals received tends to be extremely wide. The Office Director reviews each proposal for relevance to present and prospective activities. If a proposal seems appropriate and involves an expenditure of less than $30,000, it may be referred to the Small Grants Review Panel for further consideration under the Post-Doctoral Program. More costly proposals are referred to a professional staff member for additional review, again possibly involving comments from outside parties. Actual funding decisions for unsolicited proposals involve sole source procurement.

A third method of performer selection is the request for proposal (RFP), a process involving: (a) the rigid specification of project operations and objectives by OMRD staff; (b) a multi-level approval within MA of this specification; (c) formal advertisement in the *Commerce Business Daily*; (d) submission of competitive proposals by a fixed deadline; and (e) formal assessment of these proposals by a panel of Department personnel usually chaired by an OMRD staff member. The RFP panel makes recommendations to the OMRD Director, who has final funding authority. In contrast with sole source procedures, there is little room for proposal development and refinement after submission.*

Historically, sole source procurement has been the preferred selection method in DOL manpower R&D. This method served several purposes during the initial stages of the program. For research in an undeveloped field, where neither staff nor researchers could realistically define appropriate subjects or modes of investigation, it permitted close cooperation in matters of project design, helped minimize start-up time for the overall program, and enabled program managers to learn about the relative competencies of performers on a low-risk basis. For R&D activities, sole source procedures ensured both rapid start-up and the degree of independence from established bureaus thought necessary for innovative programming. In both situations, the initial supply of qualified performers was small, and sole source procurement facilitated strategic investments in the development of disciplinary and organizational resources upon which OMP, OMPER, and then ORD could later rely.

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*Regardless of selection method, once OMRD and a proposer agree on the substantive and financial details of a new project, final negotiation is carried out by a special OPER unit for contract and grant execution. This OPER unit also handles time extensions and budgetary supplements for continuing projects at the direction of OMRD.

Ad hoc external review of proposals dates from the earliest days of the research program, and extensive cooperation with extramural performers in project design continued through the 1960s. During the late 1960s, OMP began to employ RFPs for a small percentage of its projects. These were primarily survey-based investigations for which objectives could be specified accurately without great commitment of staff time and for which the supply of competent performers was relatively large.

On the other hand, OMPER stayed almost exclusively with the sole source approach. External review by researchers or practitioners outside government, even on an irregular basis, was less common. OMPER maintained that the involvement of local agencies or program operators in R&D work required special sensitivity to factors such as local political support and unusual demographic or labor market characteristics that could not be compared through competitive procedures or by casual readers.

For both research and R&D, more extensive use of RFPs has been a relatively recent phenomenon, one accompanied by substantial debate within the Department. De-emphasizing sole source procurement has been in part an effort to blunt possible Congressional criticism, which has already been directed to sole source practices in other federal R&D offices, and in part an effort by Department executives to exercise greater control over ORD funding decisions. Such considerations have tended to obscure the actual merits and limitations of each method from the standpoint of R&D office operations.

The main advantage of sole source procurement is the flexibility it allows R&D managers and staff. When there is no large group of available performers obviously well qualified to carry out a planned project, ORD can explore alternatives with give-and-take between office staff and performers in developing a suitable proposal. When staff members are not specialists in a subject area, ORD can solicit appropriate outside consultation and informal proposal review. The weaknesses of the sole source approach are that it may not allow extensive competition among potential performers for project funding (forcing R&D managers to pay special attention to proposal cost estimates) and that it may permit favoritism by the R&D office.

The RFP method, by contrast, ensures a degree of open competition, which may be especially important for a Department with major responsibility for enforcing equal employment provisions under federal contract compliance regulations. However, unless a large number of equally skilled performers are available to conduct a given project, this advantage is substantially reduced. The RFP method can effectively exclude some performers, chiefly university-based social scientists, from selection consideration.* For activities involving relatively unexplored topics or methods, the RFP process provides little opportunity for OPBE-performer discussion to strengthen project design.

While the RFP process necessitates a clearer definition of how a study can best be done, it prevents OPBE from augmenting staff capacities (or those of the RFP review panel) in project development and proposal evaluation. It can also involve legal disputes when, for example, the lowest proposal for a project is rejected on qualitative grounds. However, although RFP selection procedures are tightly structured in comparison to sole source procedures, they too can be manipulated to favor particular proposers or scientific approaches.

Project Monitoring

Substantive monitoring of projects, another major aspect of R&D implementation, requires: sound understanding of the results sought and the scientific methods used and direct contact with the performers to assure progress toward intended objectives.

The transition from performer selection to project monitoring begins when the OPBE Director assigns project officer responsibility to a staff member. (In certain situations, two staff members will be assigned to monitor a large-scale and complex project. Several OPBE project officers maintain assignments in areas of personal specialization, while others are allotted projects across a broad array of topical concerns. Because of declining staff size, the project officer monitoring an activity may not have been the staff member who coordinated the project development, proposal review, performer selection, negotiation, and approval process.)

Actual monitoring procedures vary by individual project officer, as well as by the type, relative importance, and expense of the activity involved.** More project officer time is spent on administrative details—such as budget modification, approving expenditures, and writing project justifications for annual plans—than on tracking the substantive progress of assigned projects. Because of severe limitations on OPBE's administrative budget, staff also rarely go to projects beyond easy commuting distance from Washington, D.C., and see them. (This was not the case during the 1960s.) Performers infrequently visit OPBE to discuss their work. Quarterly reports submitted by all performers and telephone trouble-shooting therefore provide the basis for OPBE monitoring.

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*This sometimes occurs because universities are not able to process R&D proposals by faculty members with sufficient speed to meet RFP deadlines. Also, if the R&D office consults formally with an outside party for advice on project specifications to be included in an RFP—normally the most expert advice the office can find—that party would not technically be eligible to compete for the project being considered. If that consultation is informal, and the highly qualified advisor does compete for the project, a primary RFP objective (to assure fair competition) is effectively circumvented.

**R&D projects generally receive greater attention than research projects, as do the more significant and expensive efforts (projects that sometimes attract intense Departmental and Congressional interest) in both research and R&D.

makers. Nor were many top policy officials in the 1972-74 period interested in such examination and synthesis as a means of enhancing R&D utilization.

There was also a sense of discouragement in ASPER about the feasibility of assisting OMRD program planning. ASPER staff participation with OMRD staff on ad hoc task forces created to suggest future R&D themes and to identify gaps in understanding for certain areas of policy concern was viewed as a positive step toward improvement. However, there were complaints from the ASPER staff that ultimate project funding decisions by OMRD bore little relationship to such planning efforts.

OPER

OPER is divided into three offices: OMRD, an office of evaluation, and a policy planning office that includes a legislative analysis staff.*

The Committee's most interesting finding was that staffs in the three OPER units do not talk with each other on a regular basis. Some noted that until 1973 they were scattered around town in separate buildings, but the more basic reasons were said to be a concentration upon short-term work, much of it administrative and carried out under heavy time pressure, and a division of labor that did not require much contact. Most agreed that whatever interaction exists occurs through the OPER director. Since the OPER director generally has some knowledge of R&D outcomes and often participates in Manpower Administration efforts to draft legislation, utilization can occur without the movement of discrete and identifiable R&D "products" between individuals or organizational units. Even if R&D results are not a key factor in reaching any one decision, they can provide a better understanding of manpower problems that will affect an official's advice and decisions.

Program Assistance Staff

More than any other group within the Manpower Administration, program assistance personnel have used manpower R&D project results. This is due largely to the relatively long-term personal relationships built up between these individuals and OMRD staff members. However, the program assistance orientation is highly operational, literally at a "nuts and bolts" level, limiting the amount of R&D considered relevant. Program assistance personnel have relied on OMRD to bring potentially applicable findings to their attention, rather than either having searched out applicable findings or taken an active part in R&D planning.

The program assistance role in CETA implementation best illustrates the incomplete nature of relationships with OMRD. During 1974, program assistance personnel prepared technical assistance guides for CETA Prime Sponsors on many topics, including planning, management information systems, and evaluation techniques. Although OMRD staff members were consulted, the content of these guides does not reflect R&D findings. (One guidebook does contain an extensive bibliography of R&D reports.) Nor was a technical assistance guide on R&D utilization published and distributed, even though OMRD's Utilization Division did prepare and submit such a guide for use by Regional Office staffs.

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*Interviews were conducted with the heads of the three offices and their ranking staff.

Program Administrators[*]

Since early R&D activities were designed to challenge the practices and policies of established bureaus and since discretionary program funds were allocated to special (E&D) projects, it is not surprising that many program officials were initially opposed to the R&D program. But as innovation in all operations became more important and more highly rewarded in the Department, the manpower R&D program established a solid constituency among national program administrators. Enthusiasm waned somewhat as the pace of manpower program expansion slowed during the 1970s. Only a few local administrators know how the manpower R&D mission has been conceived and conducted.

National Program Managers

The attitudes of national program managers toward the R&D program have changed dramatically--as has their use of R&D results--since 1962. Under MDTA, there was substantial use of R&D results for program design and in operational decision making. Almost all of this work was done at a time of the political excitement, rapid program development, and growing importance of the Manpower Administration during the 1960s. R&D influence on programs declined after 1970, partly because the executive branch emphasized tighter control over social spending, program decategorization, and allocation of responsibility for program management to the local level, which weakened both incentives to develop new programs and relationships between OMRD and continuing program operations. This fundamental change has colored the attitudes of the national program managers.

The attitudes of program managers toward the manpower R&D program also seem to be deeply rooted in their particular bureaucratic roles and in the nature of their interaction with OMRD staff. The dominant ethos among program managers is a "can do" emphasis on program implementation. The roles of most federal personnel under MDTA did not require substantive expertise in the delivery of services. Rather, the skills demanded were those of public administration.

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[*] The national program managers interviewed included several former Manpower Administration program officials and the current heads (Associate and Deputy Assistant Secretaries) of the principal Manpower Administration units with substantive operational responsibilities (the Bureau of Apprenticeship and Training, the Office of Field Direction and Management, the U.S. Employment Service, the Unemployment Insurance Service, and the Office of Manpower Development Programs) and some members of their immediate staffs. Other officials interviewed included DOL regional office executives and staff in five of the ten federal regions, as well as administrators and elected officials involved at the state and local levels in the operation of CETA Prime Sponsor programs.

Federal program officers wrote regulations, let contracts, distributed funds, insured accountability of contractors (in terms of expenditures and adherence to the regulations), and reported to Congress on these processes. This absorption in procedural matters explains why national program managers sometimes view the utilization of R&D results as not directly relevant to their responsibilities. Research that defines problems or explores issues strikes them as having little potential payoff. Furthermore, they have little time to read R&D project materials; when there is time, they have difficulty understanding summaries of R&D findings, much less technical project reports.

In general, national program managers believe OMRD is overly divorced from operations and too esoteric in its interests. OMRD is not perceived as responsive to R&D ideas solicited from agency or bureau staff, despite substantial evidence to the contrary in past OMRD activities. For example, many of the veteran cadre of the Employment Service reported good relationships with OMRD in obtaining assistance and R&D resource commitments to address operational problems. But the younger staff members in the Manpower Administration, especially those who had recently come into positions of authority, did not hesitate to comment on the lack of utility they see in the R&D effort and of their limited interest in R&D generally.

In addition to such attitudes, a major impediment to R&D utilization in national program management exists because of the skills, experiences, responsibilities, and relative isolation of OMRD staff. Even though many of those staff members were associated earlier in their careers with line units in the Department, they are now primarily contracting officers rather than program experts (or social science researchers) because of the heavy administrative demands on their time. The structure of the Manpower Administration, serious understaffing, and a lack of funds for travel and training have insulated them further from programs at a field level. Lacking direct contact with the changing world of manpower programming, OMRD staff members have been unable to play an effective part in relating R&D to operational concerns.

Furthermore, there has been little opportunity for OMRD as an organization to cultivate relationships with program managers in Washington and elsewhere. It has insufficient access to those managers to maintain a sustained dialogue concerning either short-range interests or the potential utility of more fundamental, long-term inquiry for program operations. Nor does OMRD normally receive extensive feedback from operating levels regarding the outcome of efforts to apply R&D findings in manpower programs.

Regional Officials

Regional office staffs were contacted by the Committee at a time when their old responsibilities under MDTA were withering and their new functions under CETA had not yet been clearly defined. Both generalist field staff and technical assistance personnel in the regions recognized that they were in transition from heavy-handed to helping roles. Most admitted that they lacked the substantive expertise in program design and modification essential in assisting Prime Sponsors. Their skills were mainly in the areas of contract monitoring and interpreting federal regulations. In general, they did not know what type of information would be needed for program assistance to Prime Sponsors or where this information might be found or developed.

Among regional office staff, there was a very limited knowledge of OMRD and its work. Most did know that R&D project reports were sometimes sent to the regional office, but once again, there was little or no time to read them. Those who had reviewed some of the OMRD-supported work claimed it was too academic and difficult to interpret.

It was also apparent that Regional Office staff do not consider responsibility for the use of R&D as part of their jobs. No regional offices have staff positions with such assignments. A few officials--most often at the top of the regional hierarchy--have a clearer perception of OMRD. Much like national program managers, however, they saw OMRD existing, as one put it, "in splendid isolation." There were complaints that requests from OMRD for new R&D project ideas or for comments on specific R&D proposals did not allow sufficient time for careful regional response. When ideas and comments were forwarded, there was little or no feedback from OMRD about their value or eventual disposition.

Prime Sponsors

The majority of CETA Prime Sponsor administrators and officials had even less awareness of OMRD and of manpower R&D products than regional office staff. Research to them means primarily the generation of local labor market information. Demonstration and development projects were viewed primarily as means for obtaining extra program funds and for gaining new operational experience, rather than as opportunities to design and test new methods of manpower programming.

The chief interest among local and state administrators is to build politically viable organizations for integrating efforts among the usually large number of community organizations involved in manpower service delivery. They are reminiscent of Model Cities managers of a few years ago, and many of them have such backgrounds. They are public administrators for the most part, not manpower specialists.

Prime Sponsor staffs did express interest in program evaluation. They want to know how specific service mixes and program structures are working. They have given little thought to how such information might fit into a national reporting or evaluation system, but several said they would like to receive information about how other Prime Sponsors were faring with comparable programs.

Prime Sponsor administrators indicated a commitment to comprehensive planning that would relate manpower training programs to the job requirements of an area and coordinate with local decisions for economic development, housing, transportation, and urban growth. This is surely a fundamental objective of CETA: to overcome program fragmentation and to tailor service delivery to local needs. However, there is no basis yet for determining whether this can be done through the mechanism of locally controlled manpower programming.

University Researchers

In striking contrast to the attitudes of government officials that R&D is too divorced from operations, virtually all university researchers interviewed insisted that OMRD-supported work has been too closely tied to operational rather than theoretical interests. Researchers' views also reflect internal changes within disciplines, economics in particular, between 1962 and 1975.

In its early stages, when there was no established field of manpower study, the manpower R&D program initially drew upon a very small number of academics, primarily institutional economists working in labor relations who had been concerned during the 1930s with labor force and labor market problems. Although OMRD made a concerted effort to engage sociologists, psychologists, and other social scientists, the manpower R&D program relied most heavily on economists, and its identification with that discipline grew. Criticisms by noneconomist researchers are rooted in this perception of the manpower R&D orientation.

Within economics, criticism of OMRD's work has come from two sources. First, macroeconomists, who focus mainly on fiscal and monetary management in a broad context, have been critical of micro-analysis focused on individuals, firms, occupations, and specific labor markets. Second, during the 1960s, a new generation of manpower economists, better equipped with the skills of quantitative analysis and committed to model-building approaches, began to question some OMRD-supported research, ostensibly less rigorous because of its nonmathematical orientation.*

During the 1970s, economic events have further reduced the extent of common agreement among economists regarding basic assumptions, theoretical constructs, and methods of inquiry. While all social sciences have grown more complex in technical terms, work in economics has been further complicated by such competing views. For OMRD, the lack of consensus has meant that whatever performers the Office selected, the choices would be disputed by some social scientists.

The attitudes of policy makers, program officials, and academic researchers represent a set of perceptual and institutional constraints facing R&D program managers. None of these attitudes is a direct derivative of OMRD efforts and results; rather, they reflect the differing responsibilities, expectations, and interests of the individuals concerned. The reward structure for policy makers and program officials demands that OMRD address practical questions under real time constraints; OMRD is not judged by its scientific contributions to manpower study. Within academia, however, incentives and reward patterns form around disciplinary distinctions and competing modes of analysis and thought; OMRD is judged according to its technical competence, its long-term commitment to specific lines of theoretical inquiry, and the prestige of these lines relative to other scientific pursuits. The chasm between expectations and realities is immense on all sides, and the locus of responsibility for bridging this gap remains undetermined.

UTILIZATION OBSTACLES AND OPPORTUNITIES

An increased potential for the utilization of R&D results in manpower programs exists today because a great deal of knowledge has been generated over the past decade about manpower and because, under CETA, local jurisdictions have flexibility to develop programs on the basis of that knowledge. An increased potential for R&D utilization in manpower policy exists because of the current economic situation (which has raised questions about basic economic policy assumptions) and because of the evolving federal role under CETA's form of decentralized programming. To realize this potential, however, requires significant change in the attitudes and responsibilities of policy and program officials with respect to social R&D in general and to OMRD in particular.

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*Interestingly, many of these younger academics had received OMRD Small Grants Program support for their graduate studies.

The Committee is not recommending a comprehensive utilization system partly because of perceptions in the Department, but more importantly, because the Committee does not believe that any single system can address the wide diversity of possible use and users of manpower R&D. Instead, the Committee has recommended steps to improve OMRD's technical capacity (staff and financial resources) for dissemination and utilization and to increase the Office's direct access to significant user groups. To go beyond the limited scope of these recommendations will require new appreciation of the continuing obstacles to utilization throughout the entire manpower community and a concerted effort by the Department of Labor as a whole to take greater advantage of opportunities to benefit from OMRD activities.

Obstacles

Three major obstacles have impeded effective R&D utilization within the Department of Labor: (a) absence of continuing communication about R&D among policy makers, program officials, and OMRD personnel and performers; (b) conflicts over OMRD's role and autonomy; and (c) extremely limited dispersion of responsibility for R&D utilization throughout the Department. These obstacles may never be fully removed, but their effects can perhaps be reduced.

The lack of communication about R&D is caused by differences in the cognitive worlds of government officials and researchers as well as their time priorities. The researcher isolates and examines one small piece of reality while the official lives in a realm of buzzing confusion where variables scramble together and decisions must be made in the face of uncertainty. Mutual education is often necessary for government executives and researchers to understand each other, but time for this interchange does not seem to be available. The pressure of daily business weighs upon officials, driving out long-range planning, problem anticipation, and efforts to cull R&D results for policy and program decisions.

Disseminating R&D reports cannot by itself solve the problem. Intermediaries are needed to help overcome the natural impediments to effective communication in a large organization. At least within the Department of Labor, such potential intermediaries—the staffs in ASPER and OPER as well as program assistance personnel in the Manpower Administration—who are in a position to blend R&D, policy, and program perspectives for decision makers have not done so regularly.

The second obstacle to effective utilization is conflict over OMRD's role and autonomy. In light of the attitudes described above, it is understandable that OMRD avoids continuous interaction with other units to safeguard its own agenda and create a more stable world for itself. OMRD constituencies are so diverse that it is in constant danger of satisfying no one. Under the form of decentralization mandated by CETA, if OMRD satisfies the highly operational knowledge demands of Prime Sponsors, it provides an information base for long-term policy development on a national scale; if it satisfies those more fundamental knowledge demands, it broadens its mission-oriented responsibilities to provide real-time, program-relevant advice.

At the same time, there are reasons for some potential R&D consumers to avoid close interaction with ORD. Policy and program officials may be interested only in new ideas for which funds are available and that do not detract from other activities. R&D findings that challenge existing programs or the assumptions upon which they rest, and thus the managing agency or bureau's existence, are likely to be rejected out of hand. If it is effective, social R&D in a mission setting represents a threat as well as a promise to potential users. ORD may, in fact, be forced to avoid certain topics, possibly topics of direct relevance to policy and program decisions to ensure its own survival. Or, it may be given only limited direct access to potential R&D consumers, as appears to be the case in relation to field operations under CETA.

That few personnel outside ORD's small Utilization Division are asked to review, let alone supply, R&D results as a part of their assignments illustrates the third major obstacle to greater R&D use--limited dimensions of responsibility for utilization. Instances of intensive involvement by Department officials and staff in ORD activities have generally been one-time, project-specific experiences. There has been limited recognition that the Department can benefit from something other than an R&D project report. Participation in the R&D process itself can teach officials how to couch policy and program issues in researchable terms and how to integrate R&D results with the flow of operations.

Neither Manpower Administration field staff nor Prime Sponsor personnel have been strongly encouraged to incorporate concern for R&D into their work. The burns of transition from MDTA to CETA, as well as continuing changes in the regulations, has occupied practitioners with operational problems. That operational focus will probably continue as the overall CETA effort is revised and Prime Sponsor plans are reviewed annually. However, the potential for increased R&D utilization is also present in this fluid situation. What is critical is that programs can no longer be designed or modified unilaterally in Washington. The Manpower Administration is in a market situation; to influence certain state and local choices, it should pursue all possible avenues of cooperative action to make its wares attractive to Prime Sponsors.

To take full advantage of the expanded R&D utilization opportunities created by CETA, change in ORD and Department operations appears necessary at several levels. The R&D dialogue should be expanded to include the larger number of actors now involved in manpower. There are officials in widely scattered jurisdictions who should share some responsibility for using R&D results.

In order to improve prospects for R&D utilization at the state and local levels, the Department of Labor should act as a [illegible] repository of knowledge and experience--upon which Prime Sponsors can draw. This is not a traditional role for a federal agency; to be effective, the Department will have to be committed to including R&D results as a central element in CETA operations. Fulfilling that commitment does not necessitate organizational change (which may not be desirable because of the prevailing attitudes toward R&D among program managers in Washington and because ORD also serves the national policy-making community), but rather, more concerted attempts to establish systematic methods for communicating usable R&D findings and for promoting their use under a unique system of decentralized public administration.

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Dimensions of Manpower R&D in the U.S.

Case Study: Utilization of R&D Efforts in the Licensure Field

An Analysis of the Programs of the Office of Manpower Research and Development

Capabilities of OMRD Staff: Analysis of a Questionnaire

Unsolicited Proposals--the Review Process

Interviews

Committee members and staff relied heavily on interviews as a source of information.

- 26 OMRD professional staff members were individually interviewed regarding daily activities and responsibilities, the effectiveness of various OMRD operating procedures, and future directions for OMRD and for manpower study. Group interviews were also conducted with Office Division Chiefs on these same general topics. Informal discussions were held throughout the course of Committee work with virtually all professional staff regarding particular OMRD-supported projects and specific aspects of office operations.

- 138 current and former Department of Labor officials and staff were interviewed formally to elicit their views of OMRD activities and contributions. This group included individuals in both the Department's national office and five of its ten regional offices. All were professional employees, varying in rank from mid-level career civil servant to Secretary of Labor.

- 69 officials and staff administering state or local manpower programs (under CETA, the U.S. Employment Service, and the Work Incentive Program) were interviewed concerning their knowledge and use of manpower R&D results.

- 31 officials and staff in federal agencies (other than the Department of Labor) involved in the formulation and execution of manpower and related policies were interviewed regarding OMRD and other sources of manpower analysis.

- 18 representatives of private groups (unions, employers, public interest groups) were interviewed regarding R&D in manpower.

- 95 individuals involved as staff in 34 past or present OMRD-supported projects were interviewed regarding their OMRD work, their experiences as OMRD contractors or grantees, and their views of desirable future directions for the manpower R&D program.

- 17 university-based researchers in disciplines and fields related to manpower study who have had no contractual association with OMRD were interviewed concerning OMRD's past contributions and future role.

- 32 additional researchers responded to survey letters, sent by the Committee to 53 U.S. and 16 foreign manpower research centers or organizations, commenting upon their own work in manpower and their views of needed study during the next decade.

Archival Searches

Committee members and staff were afforded complete access to OMRD files (excluding personnel records and confidential materials relating to individual DOL employees) and to the files of several other Manpower Administration units (for example, financial records for OMRD contracts and grants). OMRD staff members were particularly helpful in providing written material from their own working files and in guiding the Committee's search through the massive volume of paper that has accumulated since 1962. The Committee found certain documents to be the most useful in tracing important manpower R&D program decisions, including:

- annual plans, including working papers by office staff members that contributed to the annual planning process, and corresponding budget material.

- official files kept for individual OMRD-funded projects, including project proposals, contract and grant material, progress reports, and utilization notes and plans.

- minutes of advisory or coordinating group meetings, including, for example, those of the MA's Coordinating Committee for Manpower Research.

Data Collection and Analysis Concerning Past OMRD Projects and Expenditures

Since there is no integrated system within the Manpower Administration for maintaining substantive and financial information on R&D projects, a number of data sources were searched by Committee staff. Primary sources included: project files (containing contract or grant documents and, often, project proposals and project reports); ledgers maintained by OMRD's Operational Control and Special Grants Division; a card file of project-by-project cumulative allocations maintained by the Contract Management and Review Service unit for OPER: final project reports submitted by contractors and grantees; expenditure records maintained by the Manpower Administration's Division of Finance; and OMRD's annual *R&D Projects Book*. Secondary sources consulted were: listings of ongoing projects prepared by OMRD for internal management purposes; one-page summary sheets of (primarily E&D) projects, also prepared as internal documents; and unofficial summaries or listings maintained by individual OMRD project officers.

An attempt was made to verify financial data in at least two primary sources. This proved possible for all but some fiscal 1963 and fiscal 1966 projects; data for these were confirmed by at least two secondary sources. Substantive data (e.g., topical coverage) were obtained wherever possible from the *Projects Book* or, in the case of early E&D activities, internal one-page summaries. Actual project reports were used to verify and supplement those sources. In instances where written materials were unclear or contradictory on particular points, OMRD staff were consulted. Standard references such as *American Men and Women of Science* and the *National Faculty Directory* were used to confirm each principal investigator's discipline or field.

Data were collected between January and June, 1974. For projects still in progress at the end of that period, OMRD estimates of final costs were used. A comparison of data for fiscal 1973 projects (most of those continuing activities) with data for projects initiated in earlier years shows little variation in expenditures.

Projects involving multiple contracts (or grants) with the same performer engaged for continuation of essentially the same work were considered a single effort. Similarly, brief (six months or less) feasibility studies that led to more extensive projects were not counted separately, but as part of the larger effort. The categories employed in analyzing the data were developed by Committee staff in consultation with Committee members, staff of the Assembly of Behavioral and Social Sciences, and OMRD personnel.

Special Materials Provided by OMRD

OMRD kept the Committee informed of its past and continuing activities by providing a range of additional material, such as up-to-date copies of the Office's *R&D Projects Book*. Two such items were especially helpful: a paper, *Program of the Office of Research and Development*, prepared by Dr. Howard Rosen, OMRD's Director, and presented to the Committee at its initial meeting in June 1973; and a second paper by Dr. Rosen, *Utilization of Manpower R&D*, presented in January 1974 at a Seminar on Manpower and Social and Economic Policy held in Tucson, Arizona, and made available to the Committee.

In addition, Dr. Rosen, his immediate deputies (first, Mr. Seymour Brandwein and later Mr. Herman Travis), and other members of the OMRD staff were a constant source of assistance. Their attendance and frank contributions at several early Committee meetings helped familiarize Committee members with OMRD's activities and problems and their comments, whenever requested, were essential ingredients in producing an accurate and detailed account of OMRD operations.

Observation

OMRD officials and staff took considerable initiative in inviting or arranging for Committee members and staff to attend as observers a number of different kinds of meetings: preliminary discussions between OMRD and potential performers regarding particular projects; R&D program planning and budget review sessions; utilization strategy meetings; and meetings of advisory groups for the manpower R&D program.

Conference of R&D Office Directors

The Committee sought to determine whether the OMRD experience--and particularly the terms and conditions of its existence in a federal department--was common to other government offices operating behavioral and social sciences R&D programs. In a one-day conference, representatives of ten such offices were invited to discuss their operations with several Committee members in terms of relationships with other units and with policy echelons within their home organizations; program administration, including consideration of office structure, the requirements of intramural and extramural support, and office-contractor relationships; sources for R&D project ideas; formal and informal planning processes; performer selection procedures. The offices represented at the conference were:

Research and Demonstration Branch
Bureau of Occupational and Adult Education
Office of Education

Office of the Assistant Secretary for Research and Demonstration
Department of Housing and Urban Development

Office of External Research
Department of State

Social Processes Technical Area
U.S. Army, Research Institute for the Behavioral and Social Sciences

Career Education Program
National Institute of Education

Office of Population
Agency for International Development

Directorate of Life Sciences
U.S. Air Force Office of Scientific Research

Human Resources Research Office
Advanced Research Projects Agency
Department of Defense

Office of Manpower Program Evaluation
Department of Labor

Office of Manpower Research and Development
Department of Labor

A transcript and a summary of this meeting were made available to the Committee.

Previous Assessments of OMRD Activities

The Committee drew substantially on several previous examinations of manpower R&D program activities:

Advisory Committee on the Assessment of Experimental Manpower R&D Laboratories. *The Experimental Manpower Laboratory as an R&D Capability.* (Washington, DC: National Academy of Sciences, 1974).

Sar A. Levitan. *An Assessment of the Manpower Institutional Grants Program.* (Washington, DC: National Manpower Policy Task Force, 1972).

Garth L. Mangum. "Manpower Research and Manpower Policy," in *A Review of Industrial Relations Research*, vol. 2. (Madison, WI: Industrial Relations Research Association, 1971, pp. 61-124).

F. Ray Marshall, "Research and Development: Innovations in Manpower Policy," in Seymour L. Wolfbein, ed., *Manpower Policy: Perspectives and Prospects.* (Philadelphia, PA: Temple University, School of Business Administration, 1973).

The W. E. Upjohn Institute for Employment Research. *The Experimental and Demonstration Program of the U. S. Department of Labor.* (Washington, DC: The W. E. Upjohn Institute for Employment Research, 1966).

General Materials

Following are general sources of information that the Committee found useful:

Advisory Committee for Assessment of University Based Institutes for Research on Poverty. *Policy and Program Research in a University Setting: A Case Study.* (Washington, DC: National Academy of Sciences, 1971).

Advisory Committee on the Management of Behavioral Science Research in the Department of Defense. *Behavioral and Social Science Research in the Department of Defense: A Framework for Management.* (Washington, DC: National Academy of Sciences, 1971).

Ivar Berg. *Education and Jobs: The Great Training Robbery.* (New York: Beacon Press, 1969).

Neil W. Chamberlain. *A Decade of Industrial Relations Research.* reprint of 1958 ed. (Ann Arbor, MI: University Microfilms, 1966).

Henry David. *Manpower Policies for a Democratic Society: The Final Statement of the Council.* National Manpower Council. (New York: Columbia University Press, 1965).

Herbert Heneman. *Employment Relations Research Studies.* reprint of 1960 ed. (Ann Arbor, MI: University Microfilms, 1966).

Miriam Johnson. *Counter Point: The Changing Employment Service.* (Salt Lake City, UT: Olympus Publishing Co., 1973).

Sar A. Levitan and Garth L. Mangum. *Making Sense of Federal Manpower Policy*, 2d ed. Policy Paper in Human Resources and Industrial Relations No. 2. (Ann Arbor, MI: Institute of Labor and Industrial Relations, 1967).

Sar A. Levitan, Garth L. Mangum, and F. Ray Marshall. *Human Resources and Labor Markets.* (New York: Harper & Row, 1972).

Sar A. Levitan and Irving H. Siegel, eds. *Dimensions of Manpower Policy: Programs and Research.* (Baltimore: The Johns Hopkins Press, 1966).

Gene M. Lyons. *The Uneasy Partnership: Social Science and the Federal Government in the Twentieth Century.* (New York: Russell Sage Foundation, 1969).

Garth L. Mangum. *MDTA: Foundations of Federal Manpower Policy.* (Baltimore: The Johns Hopkins Press, 1968).

Charles A. Myers. *The Role of the Private Sector in Manpower Development.* Policy Studies in Employment and Welfare No. 10. (Baltimore: The Johns Hopkins Press, 1972).

Richard P. Nathan. *Jobs and Civil Rights: The Role of the Federal Government in Promoting Equal Opportunity in Employment and Training.* (Washington, DC: Civil Rights Commission, 1969).

National Commission on Technology, Automation, and Economic Progress. *Technology and the American Economy.* (Washington, DC: National Commission on Technology, Automation, and Economic Progress, 1966).

National Manpower Advisory Committee. *Federal Manpower Policy in Transition: National Manpower Advisory Committee Letters to the Secretaries of Labor and Health, Education, and Welfare, 1972-1973.* (Washington, DC: U. S. Department of Labor, Manpower Administration, 1974).

National Manpower Advisory Committee. *Manpower Advice for Government: National Manpower Advisory Committee Letters to the Secretaries of Labor and of Health, Education, and Welfare, 1970-1971.* (Washington, DC: U. S. Department of Labor, Manpower Administration, 1972).

Alice Rivlin. *Systematic Thinking for Social Action.* (Washington, DC: The Brookings Institution, 1971).

Peter H. Rossi and Walter Williams, eds. *Evaluating Social Programs: Theory, Practice, and Politics.* (New York: Academic Press, 1972).

Gerald G. Somers, ed. *The Next Twenty-Five Years of Industrial Relations.* (Madison, WI: Industrial Relations Research Association, 1973).

Special Commission on the Social Sciences of the National Science Board, National Science Foundation. *Knowledge into Action: Improving the Nation's Use of the Social Sciences.* (Washington, DC: National Science Foundation, 1969).

Lloyd Ulman. *Manpower Programs in the Policy Mix.* (Baltimore: The Johns Hopkins Press, 1973).

U. S. Department of Health, Education, and Welfare, Office of Education. *Educational Research and Development in the United States.* (Washington, DC: U. S. Department of Health, Education, and Welfare, 1970).

U. S. Department of Labor, Manpower Administration. *Manpower Report of the President.* (Washington, DC: U. S. Department of Labor, 1963 through 1973).

Walter Williams. *Social Policy Research and Analysis: The Experience of the Federal Social Agencies.* (New York: American Elsevier, 1971).

Seymour L. Wolfbein. *Employment, Unemployment, and Public Policy.* (New York: Random House, 1965).

Seymour L. Wolfbein, ed. *Manpower Policy: Perspectives and Prospects.* Papers on the occasion of the tenth anniversary of the Manpower Development and Training Act of 1962. (Philadelphia, PA: Temple University, School of Business Administration, 1973).

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104. Holt, Charles C., C. Duncan MacRae, and Stuart O. Schweitzer. Manpower Policies to Reduce Inflation and Unemployment. Washington, DC: The Urban Institute, 1973. Urban Institute Report 139-350-39. Grant 92-11-72-36 to The Urban Institute.

105. Holt, Charles C., Ralph E. Smith, Richard S. Toikka, William J. Scanlon, Jean E. Vanski. Labor Market Inflation and Manpower Policy. 1975. Grant 92-11-72-36 to The Urban Institute.

106. Horowitz, Morris A., Harold M. Goldstein, and Nadine Rowan. Hiring Standards for Paramedical Manpower. 1968. Grant 91-23-67-57 to Northeastern University, Department of Economics. (NTIS PB 179846)

107. Howard University, Institute for Youth Studies. New Careers for the Disadvantaged in Human Service (An Innovative Work-Training Effort Combining Social Rehabilitation and Occupational Change). 1970. Contract 82-08-43 with Howard University. (NTIS PB 199127; MA-MDTA Experimental and Demonstration Findings No. 9)

108. Huff, H. Pope. Relocating the Unemployed: Evaluation and Policy Implications for a National Program. 1973. Contract 82-26-70-12 with Systematic Training and Redevelopment (STAR), Jackson, MS. (NTIS PB 237930)

109. Illinois Bureau of Employment Security, Human Services Manpower Career Center. Manpower for the Human Services: Report 5: Community Organizations for Allied Health Manpower. 1971. Contract 82-15-70-22 with and grant 92-15-69-22 to Illinois Bureau of Employment Security. (NTIS PB 209207)

110. Jewish Employment and Vocational Service. Work Samples: Signposts on the Road to Occupational Choice (Real Job Tasks to Assess Potential of the Disadvantaged). 1968. Contract 82-40-67-40 with Jewish Employment and Vocational Service, Philadelphia, PA. (NTIS PB 201966)

111. JOBS NOW. Coaching in a Manpower Project. 1972. Contract 82-15-68-08 with JOBS NOW (the YMCA of Metropolitan Chicago). (NTIS PB 204301)

112. JOBS NOW. Final Report for Phase 1, Second Year (Hire Now, Train Later Program Emphasizing Orientation, Coaching, and Employer Involvement). 1968. Contract 82-15-68-08 with JOBS NOW (the YMCA of Metropolitan Chicago). (NTIS PB 199436)

113. Jobs for Progress, Inc. Operation SER, Final Report of Jobs for Progress, Inc. 1970. Contract 82-46-66-33 with Jobs for Progress, Inc., Santa Monica, CA. (NTIS PB 199510)

114. Jones, Ethel B. A Feasibility Study to Identify the Underemployed and to Examine the Labor Market Attachment of Labor Force Non Participants in a Low-Income Area. 1967. Grant 91-11-66-46 to University of Georgia. (NTIS PB 177559; ERIC MP 000531)

115. Joseph, Myron L. Feasibility Study for Research on Public Utility Internal Labor Market. 1973. Grant 92-42-72-34 to Carnegie-Mellon University.

116. Kesselman, Jonathan. Labor-Supply Effects of Income, Income-Work, and Wage Subsidies. Journal of Human Resources 4(3):275-92, 1972.

117. Kidder, David E. and Alice E. Kidder. Negro and White Perception of Company Employment Policy in the South. 1971. Grant 91-11-69-33 to Atlanta University, Atlanta, GA. (NTIS PB 201290)

**118. Kim, Sookon. *Cross-Substitution Between Husband and Wife as One of the Factors Determining the Number of Hours of Labor Supplied by Married Women*. 1972. Contract 82-39-72-21 with Ohio State University, Center for Human Resource Research. (NTIS PB 211648)

119. King, Allan G. and Nancy Lee. *A Pilot Project to Overcome Barriers to Employment of Minority Women in White Collar Jobs*. Austin: University of Texas, Center for the Study of Human Resources, 1974.

120. Kirsh, Arthur W. and Donald D. Cooke. *Upgrading the Labor Force: Problems and Possibilities*. New York: E. F. Shelley and Company, Inc., 1971. Contract 82-34-70-26. (NTIS PB 199153)

121. Klausner, Samuel Z. *The Work Incentive Program: Making Adults Economically Independent*. 1972. Contract 51-40-69-01 with University of Pennsylvania. (vol. 1, NTIS 220204; vol. 2, NTIS 220205)

**122. Kohen, Andrew I. *Determinants of Labor Market Success Among Young Men: Race, Ability, Quantity, and Quality of Schooling*. 1973. Contract 82-39-72-21 with Ohio State University, Center for Human Resource Research. (NTIS PB 208638)

*123. Kohen, Andrew I. with the assistance of Paul Andrisani. *Career Thresholds: A Longitudinal Study of the Educational and Labor Market Experience of Male Youth*. vol. 4 (1969 survey). 1974. Manpower Research Monograph No. 16. Contract 82-39-72-21 with Ohio State University, Center for Human Resource Research. (NTIS PB 220734)

*124. Kohen, Andrew I. and Herbert S. Parnes. *Career Thresholds: A Longitudinal Study of the Educational and Labor Market Experience of Male Youth*. vol. 3 (1968 survey). 1971. Manpower Research Monograph No. 16. Contract 82-39-72-21 with Ohio State University, Center for Human Resource Research. (NTIS PB 201287)

**125. Kohen, Andrew I., Herbert S. Parnes, and John R. Shea. Income Stability Among Young and Middle-Aged Men. In James Smith, ed. *The Personal Distribution of Income and Wealth*. 1974. Contract 82-39-72-21 with Ohio State University, Center for Human Resource Research.

126. Koziara, Karen S. *Labor Force Nonparticipation of Males in Urban Poor Areas*. 1969. Grant 91-40-68-08 to Temple University. (NTIS PB 183538)

127. Kraft, David. *San Jose Residential Manpower Center Drug Project*. 1974. Memorandum of agreement 82-11-71-14 with the U. S. Department of Labor, Job Corps Health Unit.

128. Kreps, Juanita. *Sex in the Marketplace: American Women at Work*. Baltimore: Johns Hopkins Press, 1971. Contract 81-09-66-31 with the National Manpower Policy Task Force.

129. Lachman, Sheldon L. and Benjamin D. Singer. *The Detroit Riot of July 1967--A Psychological, Social, and Economic Profile of 500 Arrestees*. 1968. Contract 81-24-68-03 with the Behavior Research Institute. (NTIS PB 178035; ERIC MP 000559)

130. Landay, Donald. *Labor Mobility and Private Pension Plans--A Study of Vesting, Early Retirement, and Portability Provisions*. 1964. U. S. Department of Labor, Bureau of Labor Statistics Bulletin 1407. (MDTA 1-63B)

131. Lecht, Leonard A. *Manpower Needs for National Goals in the 1970's*. New York: Praeger Pubs., 1969.

132. Lecht, Leonard A. Poor Persons in the Labor Force: A Universe of Need. 1970. Contract 81-09-68-36 with National Planning Association, Center for Priority Analysis. (NTIS PB 196742)

133. Lecht, Leonard A. Priorities for Research in Anticipating State-Local Government Employment Resulting from the Federal Grants-in-Aid System. 1972. Contract 81-09-70-16 with National Planning Association. (NTIS PB 211440)

134. Lecht, Leonard A. and Morris Cobern. Utilizing Persons with Engineering Backgrounds in the Health Related Industries. 1972. Contract 81-09-70-16 with National Planning Association. (NTIS PB 211439)

135. Legal Resources, Inc. Opportunities Industrialization Centers: A Synthesis and Analysis of Fifteen OIC Final Reports. 1969. Contract 82-09-69-27 with Legal Resources, Inc., Washington, DC. (NTIS PB 199551)

136. Leiberg, Leon. Project Crossroads (Pre-Trial Intervention with First Offenders), A Final Report. 1969. Contract 82-34-68-15 with National Committee for Children and Youth, Washington, DC. (NTIS PB 199131)

137. Leiter, Sarah F. Training and Employment of the Older Worker: Recent Findings and Recommendations Based on Older Worker Experimental and Demonstration Projects. 1969. Contract 82-22-67-41. (NTIS PB 202482)

138. Lennihan, Kenneth J. The Financial Resources of Released Prisoners. 1974. Bureau of Social Science Research: 531. Contract 82-11-71-45 with Bureau of Social Science Research, Inc.

139. Levine, Louis. Labor Market Information for Local Delivery of Manpower Services. 1972. Contract 71-11-72-05. (NTIS PB 221314)

140. Levine, Louis and Raymond Erhle. Program Innovation in the Employment Service. University Park: Pennsylvania State University, Institute for Research on Human Resources, 1968.

141. Levitan, Sar A. An Assessment of the Manpower Institutional Grants Program. 1972. Contract 82-11-72-17 with National Manpower Policy Task Force. (NTIS PB 211638)

142. Lineham, Jean D. A Chance to Get Ahead: Proficiency Examinations for Clinical Laboratory Personnel. 1974. Contract 82-22-70-35 with National Committee for Careers in the Medical Laboratory and the Educational Testing Service, Princeton. (NTIS PB 236178)

143. Lorber, Fred. Fulfilling the Potential of NYC-2. Six Monographs: Using Government Agencies for Training the Disadvantaged for Employment in the Public and Private Sectors; Preventive Phonetics for Teaching English Pronunciation to Spanish-Speaking Trainees; A Study of Three Major Textbooks Which Use the Audiolingual Method for Teaching English as a Second Language; Operating a Public Service Business as a Neighborhood Youth Corps Training Site: Overenrollment Problems in a Manpower Training Program; and Guidelines in the Utilization of Training Incentives. 1972. Contract 42-36-73-02 with Mobilization for Youth, Inc., New York. (NTIS PB 211814)

144. MacRae, C. Duncan and Stuart O. Schweitzer. The Relation Between Vacancies and Unemployment. Unpublished working paper 350-42, The Urban Institute, Washington, DC, 1973. Grant 92-11-72-36 to The Urban Institute.

145. MacRae, C. Duncan and Stuart O. Schweitzer. *Wage Inflation and the Dispersion of Unemployment*. Unpublished working paper 350-50, The Urban Institute, Washington, DC, 1973. Grant 92-11-72-36 to The Urban Institute.

146. Mandell, Wallace. *Retraining Problem Drinkers on the Job*. 1974. Grant 21-24-73-23 to Johns Hopkins University, School of Hygiene and Public Health.

147. Manpower Science Services, Inc. *Role Modeling, Role Playing: A Manual for Vocational Development and Employment Agencies*. 1970. Contract 82-24-68-34 with Manpower Science Services, Inc., Ann Arbor, MI. (NTIS PB 199840)

148. Markowitz, Edward A., Daniel Quinn Mills, and John T. Dunlop. *A Feasibility Study of a Computer-Based Manpower Information System for the Construction Industry*. 1973. Contract 71-25-71-01 with Joint Center for Urban Studies, Harvard University and Massachusetts Institute of Technology. (NTIS PB 21404)

149. Marshall, F. Ray. The Economics of Racial Discrimination: A Survey. *Journal of Economic Literature* 12(3):849-71, 1974.

*150. Marshall, F. Ray. *Negro Employment in the South*. 3 vols. 1972. Contract 81-19-68-13 with University of Kentucky Research Foundation. (NTIS PB 219611)

151. Marshall, F. Ray. *Rural Workers in Rural Labor Markets*. Salt Lake City, UT: Olympus Publishing Company, 1974. U. S. Office of Economic Opportunity Grant 61202 to University of Texas, Center for the Study of Human Resources.

152. Marshall, F. Ray and Vernon M. Briggs, Jr. *The Negro and Apprenticeship*. Baltimore, MD: Johns Hopkins Press, 1967. Contract 81-46-66-01 with University of Texas. (NTIS PB 177568)

153. Marshall, F. Ray, William S. Franklin, and Robert W. Glover. *A Comparison of Union Construction Workers Who Have Achieved Journeyman Status Through Apprenticeship and Other Means*. 1973. Contract 82-48-71-28 with University of Texas, Center for the Study of Human Resources. (NTIS)

154. Mathematica, Inc. *A Study of Unemployment Insurance Exhaustees*. Contracts 20-34-74-23, 11-34-74-01 with Mathematica, Inc., Princeton, NJ. (Ongoing project--final report not yet available)

155. Matilla, J. Peter. *The Impact of Extending Minimum Wages to Private Household Workers*. 1971. Grant 91-39-71-44 to Ohio State University Research Foundation. (NTIS PB 204585)

156. McArthur, Virginia A. *From Convict to Citizen: Programs for the Woman Offender*. 1974. Grant 92-11-72-05 to District of Columbia Commission on the Status of Women. (NTIS PB 236170/AS)

157. McHugh, Paul. *The Work Sample: Reality-Based Assessment of Vocational Potential*. 1970. Contract 82-34-69-21 with Mobilization for Youth, Inc., New York. (NTIS PB 199474)

158. McKinlay, Bruce. *Developing a Career Information System: Final Report*. 1974. Contract 82-41-72-03 with Oregon State Board of Education.

159. Miles, Guy and William Henry. *An Experimental Program for Ethnic Minority Youth from the Rural Southwest*. Minneapolis, MN: North Star Research Institute, 1974.

**160. Miljus, Robert C., Herbert S. Parnes, Donald M. Schmidt, and Ruth S. Spitz. Some Correlates of the *Labor Market Status of Male Youth*. Pages 47-71 in *The Transition from School to Work*. Princeton, NJ: Princeton University, Industrial Relations Section, 1968. Contract 82-39-72-21 with Ohio State University, Center for Human Resource Research.

161. Miller, Herbert S. *The Closed Door: The Effect of a Criminal Record on Employment with State and Local Public Agencies*. 1972. Contract 81-09-70-02 with Georgetown University. (NTIS PB 207680)

162. Miller, Paul B. *The Role of Farm Labor Market Institutions in the Lower Rio Grande Valley of Texas*. 1971. Contract 81-46-68-14 with Texas A & M University. (NTIS PB 218318)

163. Mills, Daniel Quinn. *Industrial Relations and Manpower in Construction*. Cambridge, MA: Heath Lexington Books, 1972. Contract 81-23-69-2 with Harvard University.

***164. Mincer, Jacob and Solomon Polachek. *Family Investment in Human Capital: Earnings of Women*. Paper presented at Population Conference II, Chicago, IL, June 4-5, 1973.

165. Mississippi State University. *A Training Manual in Human Resource Development*. 1972. Contract 82-26-69-17 with Mississippi State University. (NTIS PB 199482)

166. Moore, Geoffrey H. *Measurement and Interpretation of Job Vacancies--A Conference Report of the National Bureau of Economic Research*. New York: Columbia University Press, 1966. Contract MDTA 31-64 with National Bureau of Economic Research.

167. Moser, Collette, ed. *Labor Market Information in Rural Areas: Proceedings of a Conference February 22-23, 1972*. 1972. Grant 21-26-73-32 to Michigan State University, Center for Rural Manpower and Public Affairs. (NTIS PB 218790)

168. Murton, Thomas O., Phyllis Jo Baunach, and Kenneth Demorest. *Shared Decision-Making as a Treatment Technique in Prison Management*. 1975. Grant 21-27-74-29 to the Murton Foundation for Criminal Justice, Inc., Minneapolis, MN.

169. Myers, John G. *Job Vacancies in the Firm and the Labor Market*. 1968. Contract 81-34-66-13 with National Industrial Conference Board. (NTIS PB 179864)

170. National Civil Service League. *Emergency Action Plan for Public Service Employment*. 1971. Contract 82-09-70-24 with National Civil Service League. (NTIS PB 202818)

**171. Nicholson, Edward A. and Roger D. Roderick. *Correlates of Job Attitudes Among Young Women*. 1973. Contract 82-39-72-21 with Ohio State University, Center for Human Resource Research.

172. North Carolina Manpower Development Corporation. *Demonstration of Manpower Development Centers in North Carolina Communities*. 1972. Contract 82-35-70-01 with North Carolina Manpower Development Corp., Chapel Hill, NC. (vol. 1 NTIS PB 201161; vol. 2 NTIS PB 201162)

173. North, David S. and William G. Weissert. *Immigrants and the American Labor Market*. 1973. Manpower Research Monograph No. 31. (NTIS PB 221290)

174. Nye, Charles and Patricia Mapp. Women in Apprenticeship—Why Not? Washington, DC: U. S. Department of Labor, 1973. Manpower Research Monograph No. 33.

175. Orth, III, Charles D. and Frederic Jacobs. Demonstration Project to Design, Develop, and Teach a Model Health Care Career Program for the Neighborhood Youth Corps. Boston, MA: Career Development International, Inc., 1973.

*176. Parnes, Herbert S. The National Longitudinal Surveys Handbook. 1973. Contract 81-39-72-21 with Ohio State University, Center for Human Resource Research.

*177. Parnes, Herbert S., Karl A. Egge, Andrew I. Kohen, and Ronald M. Schmidt. The Pre-Retirement Years: A Longitudinal Study of the Labor Market Experience of Men. Vol. 2 (1967 survey). Washington, DC: U. S. Department of Labor, Manpower Administration, 1970. Manpower Research Monograph No. 15. Contract 81-39-72-21 with Ohio State University, Center for Human Resource Research.

*178. Parnes, Herbert S., Belton M. Fleisher, Robert C. Miljus, and Ruth S. Spitz. The Pre-Retirement Years: A Longitudinal Study of the Labor Market Experience of Men. Vol. 1 (1966 survey). Washington, DC: U. S. Department of Labor, Manpower Administration, 1970. Manpower Research Monograph No. 15. Contract 81-39-72-21 with Ohio State University, Center for Human Resource Research.

**179. Parnes, Herbert S. and Jack A. Meyer. Withdrawal from the Labor Force by Middle-Aged Men, 1966-1967. Pages 61-88 in Gloria Shatto, ed., Employment of the Middle Aged: Papers from Industrial Gerontology Seminars. Springfield, IL: Charles C. Thomas Co., 1972. Contract 81-39-72-21 with Ohio State University, Center for Human Resource Research.

*180. Parnes, Herbert S., Robert C. Miljus, and Ruth S. Spitz. Career Thresholds: A Longitudinal Study of the Educational and Labor Market Experience of Male Youth. Vol. 1 (1966 survey). 1970. Manpower Research Monograph No. 16. Contract 81-39-72-21 with Ohio State University, Center for Human Resource Research. (NTIS PB 183130)

*181. Parnes, Herbert S., Gilbert Nestel, and Paul J. Andrisani. The Pre-Retirement Years: A Longitudinal Study of the Labor Market Experience of Men. Vol. 3 (1968 and 1969 surveys). Washington, DC: U. S. Department of Labor, Manpower Administration, 1973. Manpower Research Monograph No. 15. Contract 81-39-72-21 with Ohio State University, Center for Human Resource Research.

**182. Parnes, Herbert S. and Ruth S. Spitz. A Conceptual Framework for Studying Labor Mobility. Monthly Labor Review 92(11):55-58, 1969. Contract 81-39-72-21 with Ohio State University, Center for Human Resource Research.

*183. Parnes, Herbert S., Avril Van Adams, Paul J. Andrisani, Andrew I. Kohen, and Gilbert Nestel. The Pre-Retirement Years: A Longitudinal Study of the Labor Market Experience of Men. Vol. 4. Washington, DC: U. S. Department of Labor, Manpower Administration, 1975. Manpower Research Monograph No. 15. Contract 81-39-72-21 with Ohio State University, Center for Human Resource Research.

184. Patterson, Gertrude E. An Evaluation of the Concept of Trainee Camps for Unemployed Youth. 1967. Contract [illegible] with Stanford Research Institute. (NTIS PB [illegible]; ERIC ED [illegible])

185. Phelps, Edmund S., ed. The Microeconomic Foundations of Employment and Inflation Theory. New York: W. W. Norton Co., 1970.

186. Quinn, Robert P., Graham L. Staines, and Margaret R. McCullough. Job Satisfaction: Is There a Trend? Washington, DC: U. S. Department of Labor, 1974. Manpower Research Monograph No. [illegible].

187. Reder, Melvin W. Unemployment Among New Labor Market Entrants. Palo Alto, CA: Stanford University, [illegible].

188. Richardson, Ann and Laure M. Sharp. The Effect of Employment Training in WIN: Report on the First Phase of the Study. 1974. Bureau of Social Science Research, Inc. Grant [illegible], Grantee: Bureau of Social Science Research.

*189. Roderick, Roger D. with the assistance of Joseph M. Davis. Years for Decision: A Longitudinal Study of the Educational and Labor Market Experience of Young Women. Vol. 3 [illegible]. 1973. Manpower Research Monograph No. [illegible]. Contract [illegible] with Ohio State University, Center for Human Resource Research. (NTIS PB [illegible])

*190. Roderick, Roger D. and Andrew I. Kohen. Years for Decision: A Longitudinal Study of the Educational and Labor Market Experience of Young Women. Vol. [illegible]. Manpower Research Monograph No. [illegible]. Contract [illegible] with Ohio State University, Center for Human Resource Research. (NTIS PB [illegible])

191. Rogers, David and Evelyn Menzel. Interorganizational Relations and Inner City Manpower Programs. New York: New York University, Graduate School of Business, 197[illegible].

192. Rosen, Hjalmar, Ronald Close, and Lynn R. Anderson. [illegible] of Unemployed Negro [illegible] Their Employment Counselors and Their Employers. 197[illegible]. Contract [illegible] with Wayne State University. (NTIS PB [illegible])

193. Rosenthal, Neal H. [illegible] Impact of Occupational Training in Industry. 197[illegible]. Contract [illegible] with U. S. Department of Labor, Bureau of Labor Statistics.

*194. Ross, David B. State and Local Governments: [illegible] Vol. [illegible]. 197[illegible]. Manpower Research Monograph No. [illegible]. Contract [illegible] with University of Kentucky Research Foundation. (NTIS [illegible]

195. Rovner-Pieczenik, Roberta. The First Decade of Experimentation: A Synthesis of Manpower R&D Projects in Criminal Justice and Corrections (1963-1973). 1973. Manpower Research Monograph No. [illegible]. Grant [illegible] to Criminal Justice Research, Inc., Cambridge, MA. (NTIS PB [illegible])

196. Rowan, Richard L. and Lester Rubin. Opening the Skilled Construction Trades to Blacks: A Study of the Washington and Indianapolis Plans for Minority Employment. 197[illegible]. Contract [illegible] with University of Pennsylvania. (NTIS [illegible])

197. Russell, Wendell. Upgrading in an Industrial Setting—Final Report. 197[illegible]. Grant [illegible] to Oak Ridge Associated Universities, U. S. Atomic Energy Commission, Oak Ridge, TN. (NTIS PB [illegible])

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